

THE
Lightning Columne,
OR
SEA-MIRROUR.

CONTAIGNING

The Sea-Coasts of the Northern, Eastern and Western Navigation: Setting forth in divers neceſſarie Sea-Cards all the Ports, Rivers, Bayes, Roads, Depths and Sands; very curiouſly placed on its due Polus-height furniſhed. With the diſcoveries of the chief Countries, and on what cours and diſtance they lay one from another. Never theretofore ſo clearly laid open, & here & there very diligently bettered & augmented for the uſe of all Sea-Men.

AS ALSOO THE

Situation of the Northernly Countries, as Iſlands, the Strate Davids, the Iſle of Jan-Mayen, Bears-Iſland, Old-Greenland, Spitsbergen & Nova Zembla: Adorneth with many Sea-Cards & Diſcoveries.

Gathered out of the experience and practice of divers Pilots and Lovers of the famous Art of Navigation.

Whereunto is added a brief Inſtruction of the Art of Navigation, together with New Tables of the Suns Declination, with an New Almanach.

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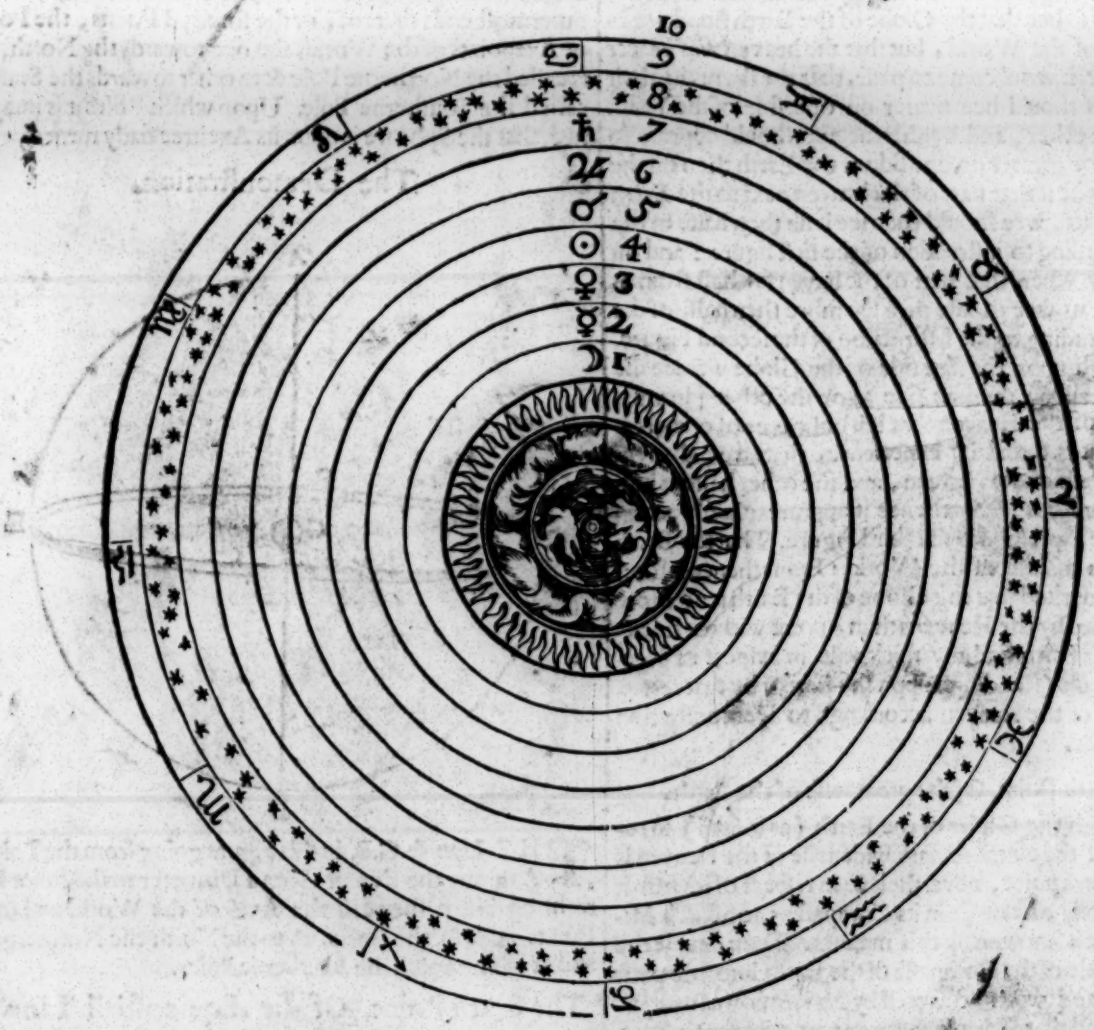
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A SHORT INSTRUCTION
In the Art of
NAVIGATION.

THE art of Navigation is a Science by which through certaine rules you may ſteere a Ship over the Seas from one place to another, and is not improperly devided into two parts, to witt, into ordinary & extraordinary Navigation. The ordinary Navigation uſeth no other Inſtruments, then the Compaſſe and ſounding Plumet, as principally conſiſtingh in experience and practice, in know ledge of Lands & Corners, how they are different in Points and diſtances and are knowne from the Sea, in depths, ſhoales qualiteys of grounds: the running and falling of Streames: upon what point the moone maketh hig water in every ſeverall place & ſuch like which in part are learned from the information of experienced Pilots, but moſt out of owne experience.

Extraordinary Navigation uſeth beſides the foreſayd ordinary practiſe dwers other private Inſtruments and rules, which muſt bee taken out of Aſtronomy and Coſmography. It is therefore needfull that every Pilot who will uſe and practiſe this extraordinary Navigation, muſt firſt of all hee well inſtructed in the principles of the ſame Arts, that is, that hee know and underſtand the proportions and deviſions of the Spheare of the World, the Motions of the Havens, the eſpecially the eighth, fourth and firſt, together with the Fabrique of the Inſtruments, without which know ledge its impoſſible to accompliſh happily, greate and never before ſougt out Voyages over the Vaſt Seas. And ſeeing that ſuch know ledge may bee attained out of good Inſtruction wee have here ſet downe in this Tractate for the benefit of young ſeamen who are deſirons to bee Pilots as cleare & plaine rules as the ſhortneſſe here of could ſuffer.

The firſt Point, Of the Spheare and the divers motions thereof.



A Spheare properly is called a Ball, wholly entire and round, whoſe ſuperficies and outſide is every where a like diſtant from its center. By that World Sphæra Mundi, or Spheare of the World, wee underſtand commonly the whole Ball of the Heavens with all that is ther in contained: and it is devided in two parts, Elementary and Cæleſtiall, the Elementary part hath againe 4 parts: the firſt is the Earth, which with the water as the ſecond maketh a compleate Ball upon which wee dwell. The third is the Aire encompaſſingh the Earth, and the fourth is the fire, which accordingh to the opinion of Philoſophers containeth the ſpace, which is betweene the Aire and the Spheare of the Moone. From theſe Elements (which are the beginning of all things) which are alwayes ſubject to changes,

together with the Warmth of the Heavens arise and perish by a continuall change and alteration of the one into the other, all things which wee see and find upon Earth.

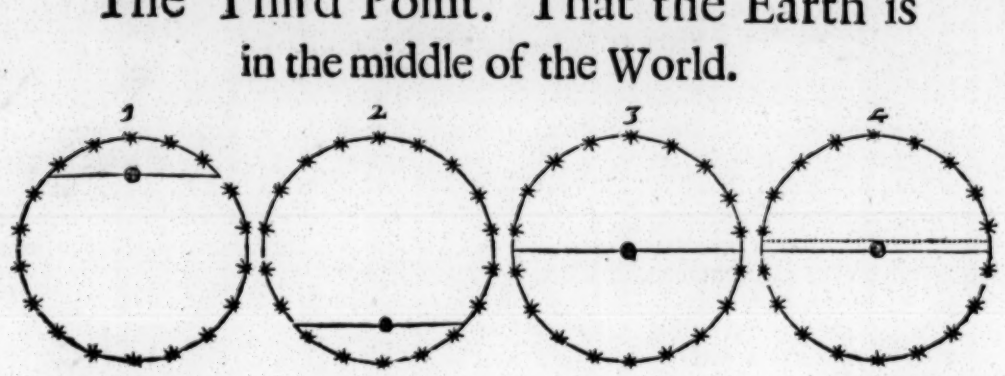
The Celestiall part (containingh within in its Hollownesse the Elementaryes) is pure shiningh, Seperate and voyd of all changes, is devided into 8. Spheares or round Hollow Balles, which are called Heavens, where of the greatest alwayes containeth one the other in manner of a Ball, the seaven lowest have, but every one Starre or Plannet, where of the first (next the Earth) is the Heaven of the Moone, the second of Mercury, the third of Venus, the fourth of the Sonne, the fifth of Mars; the sixth of Jupiter, the seaventh of Saturne, an the eigth of all the fiued Starrs. The Number of these Heavens are knowne by theyr Courses which wee see in them round about the Poles of the Zodiaque. The Moone runneth through her Heaven by her owne naturall course from west to east in 27. dayes, 8. howres, Mercury, Venus and the Sunne theyrs in a yeare. Mars his in 2. yeares, Jupiter his in 12. and Saturne in 30. yeares; The 8. heaven perfects its owne course, accordingh to the Affirmation of Tycho Brahe in 25400. yeares; These Heavens are turned about all alike in four and twenty houwres on the Poles about the Axes of the World by the ninth Heaven which is called the Primum Mobile, that is the first Mover by which Motion in our sigt is caused Day and Nigt, and the daily risingh and fallingh of the heavenly lights.

The second Point, Of the Roundnesse of the Earth.

THAT the Earth with the Water together maketh a round Globe, appeareth not onely out of experience very clearely, but also out part of the Shaddow of Earth in the Eclips of the Moone. In what soever part of the Heaven the Moon is Eclipsed or touched by the Shaddow of the Earth, that Shaddow seemeth alwayes round. If the Earth were foure square, 3 corned or of any other forme, then the Shaddow of the Moon should bee also foure square, three corned or some other forme? For of what proportio ony body is, such also must bee the Shaddow thereof. And seeingh therefore that the Shaddow of the Earth is alwayes and on all sides round, the Earth it selfe must also bee neceassailly round.

That the Havens is round wee marke from the Eye, but is most clearely perceived from the Circular motions of the heavenly ligts, as of the Sonne, Moone and Starres.

The Third Point. That the Earth is in the middle of the World.



THAT the Earth standet in the middle of the World may clearly bee understood by what is here after spoken: for if so bee that the Globe of the Earth stood not in the middle of the World, but that the heaven was nearer it on one side, it woul come to passe, that the starres in their daily courses should bee nearer on one side of the Earth then on the other, and by that meanes should appeare to our sigt to bee greater on one side of the Earth then on the other: likewise if that part of the heaven next to the Earth were above us, wee should then see lesse then halfe of the heaven according to instruction of the first figure: and on the contrary when that part of the haven fartheest from us were above us wee should then see more then halfe of the Heaven according to the Instruction of the second Figure. But standingh upon the flatt side of the Globe wee see the Starres as well on the one side as on the other (in what soever part of the Heaven that it is) alwayes of one greateneesse and it is found by experience, that wee alwayes see the one half of the Heaven, and the other halfe is hidden from our Eyes, from thence it appeares plainly accordingh to the expression in the third Figure. That the Earth stands in the middle of the World: From thence is likewise to bee marked that the Globe of the Earth is no more to bee likened by the Heavens then a point without thickneesse for if the Earth had any thickneesse in respect of Heaven, wee should (standingh upon the Earth) by that reason not see halfe of the Heaven accordingh to Demonstration of the 4 Figure.

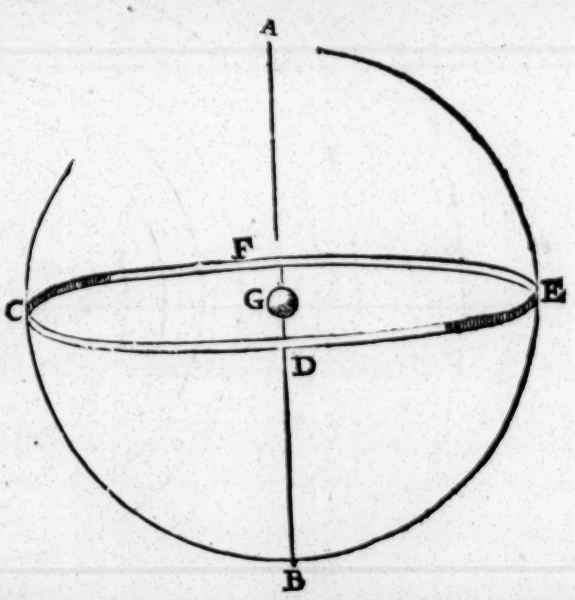
The fourth Point, Of the greatnesse of the Earth.

ALthough the Globe of the Earth (as is sayd) in respect of the extraordinary wideneesse of the Heaven is no more then a point, nevertheleesse in respect of its selfe it is a greate body, havingh in its Compasse 5400 dutch Miles. And that is knowne by this meanes. If you devide the whole Circkle of the Compasse of the Earth into 360 parts or degrees, and wee find as well by Navigation as by measuring of Land that such a Degree or part containeth fifteene such Dutch Miles 360. such part being multiplyed by fifteene make out 5400. Dutch Miles.

The fifth Point, Of the Axis and Poles or Axepoints of the World.

IN the Globe of the World is imagined to bee a Line goingh from one Point on the side of the Spheare (as a Diameter throug the Center) to another Point rigt against it on the other side. That Line is called the Axis and the outermost ends thereof, or the foresayd Points, the Poles or Axepoints of the World, the one towards the North, & is called the Northerne Pole & te other towards the South, called the Southerne Pole. Upon which Poles it is imagined, that the Spheare is upon its Axeltree daily turned.

The Demonstration.



THE Line A.G.B. in this Figure going from the Point A throug the Center G. as a Diameter to the Point B. right against it sheweth the Axel of the World and the Points A. & B. the Poles. A to the North the Northerne, and B. to the South the Southerne Poles.

The Sixth Point. Of the Æquinostiall Line.

IN the middest of the Heavens every where equally distant from both the Poles, is imagined a greate Circle, dividing the whole Spheare into two equall parts which is called the Æquinoctiall, because when the Sonne commeth to or under that Circkle which commeth to passe the 21. of March, and the 23 of September, the day and night are in all places of the Earth of an equallenght. The knowledge of this Circkle is proffitable above all things in Navigation, to know thereby, how far wee goe either to the Northwards or Southwards upon Earth; thereby also is reckoned the time and hower of the day, the Declination of the Sonne and Starres, and more other proffitable things.

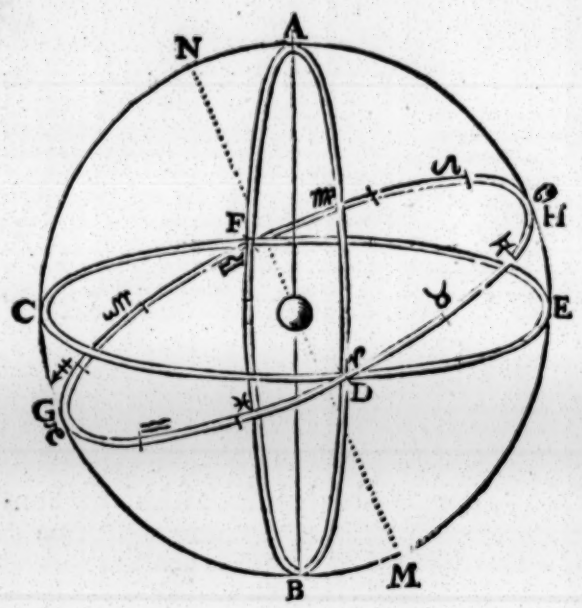
De-

Demonſtration.

IN the foregoing Figure A. and B. the Poles of the World C. D. E. F. is the Equinoctiall Line in the middeſt of the Heaven equally diſtant from both the Poles A. & B. dividingh the whole Spheare A. C. B E. into two equall parts as C. A. E. the Northerne and C. B. E. the Southerne part from hence is to bee noted: Seeing that the whole Compaſſe of the Heavens is divided into 360. degrees that the Poles ſtand from one another 180. degrees and betweene the Poles and the Æquinoctiall remaineth every where on both ſides 90. degrees. This Line is marked in the Sea-cards with a red Line from eaſt to weſt through the beginningh of the degrees according as they are reckoned as well towards the North as to the South.

The Seaventh Point, Of the Ecliptique Line.

THE Ecliptique Line lyeth away over the Equinoctiall devidingh it in two point right over againſt one another in two equall parts, and is alſo devided by it in two equall parts, the one lyet betweene the Equnoctiall, and the North-Pole, the other betweene the Equinoctiall and the South-Pole: Its greateſt Declination on both ſides of the Equinoctiall towards both the Poles is 23. degrees 31½ minutes and is devided into twelve equall parts, and to each of them a ſeverall ſigne applyed. The Son goeth alongh't this Cirkle without ever goingh out of it and runneth through it with its owne naturall courſe every yeare once and even as the Poles of the World ſtand every where a like diſtant from the Equinoctiall even ſo thath the Ecliptique alſo its two Poles every where a like diſtant from the ſame.



Demonſtration.

IN this Figure as before is ſayd A. B. are the Poles of the World C. D. E. F. the Equinoctiall, G. D. H. F. the Ecliptique Line cuttingh and dividingh the Equinoctiall, and its ſelfe alſoo into two equall parts, in the Points D. and F. which wee call the Equinoctiall, the one at D. the Spring Equinoctiall, the other at F. the Autumne Equinoctiall. The one halfe D. H. F. the northern part lyeth betweene the Æquinoctiall D. E. F. and A. the North-Pole at moſt declined towards F. H. 23. degrees and 31½ Minutes: The other halfe F. G. D. the Southern parth lyeth betweene the Equinoctiall F. C. D. and the South-Pole B. likewiſe at moſt declined as C. G. 23. degrees 31½ Minutes. The North-part is devided into ſix ſignes which wee call the Northerly beginning at D. with the Kimbug ſignes towards the north. Aries, Taurus, Gemini unto H. the point of the fartheſt declination. From thence with the deſcending ſignes of the North, Cancer, Leo, Virgo, to the Equinoctiall Line in F. the Autumne Equinoctiall, the ſouthern-part is alſo devided into ſix ſignes which wee call the Southerly beginningh at F. with the diſcending ſignes towards the South Libra, Virgo, Saggittarius untill G. the Point of the fartheſt Declination towards the ſouth from thence further with kiimbing ſignes towards the North Capricornus, Aquarius. Piſces as farr, as till you come to the Equinoctial line in the Spring Equinoctiall D. The Son runneth through the three firſt Northerly ſignes from the 21. of March New ſtyle to the 21. of June New ſtyle, the other from the 21. of June to the 23 of September. The firſt 3. Southerly ſignes from the 23. of September to the 23 of December, and the other from the 23. December till the 21. of March againe. The Poles of the Ecliptique are M. & N. both of them ſtandingh every where a like diſtant from the Ecliptique G. H. and ſoo farre from the Poles of the World A. and B. as the Ecliptique is fartheſt decliningh from the equinoctiall at H. E. and C. G.

The eight Point, Of the Coluri.

THE Coluri are two Circkles, going croſwayes throug both the Poles of the World, dividingh each other in two parts in the Poles, and together with them the whole Globe Equinoctiall Zodiack or Ecliptique and all the Paralels in 4 equall parts, the one going through the Points of the Equinoctialls is called the Colurus of the Equinoctials, the other throug the Points of the Solſtices the Colurus of the Solſtices. The Sonne moving theſe Circles (through its yearely courſe in the Zodiack, devideth the yeare into foure parts) as the Spring, Summer, Autum and Winter.

Demonſtration.

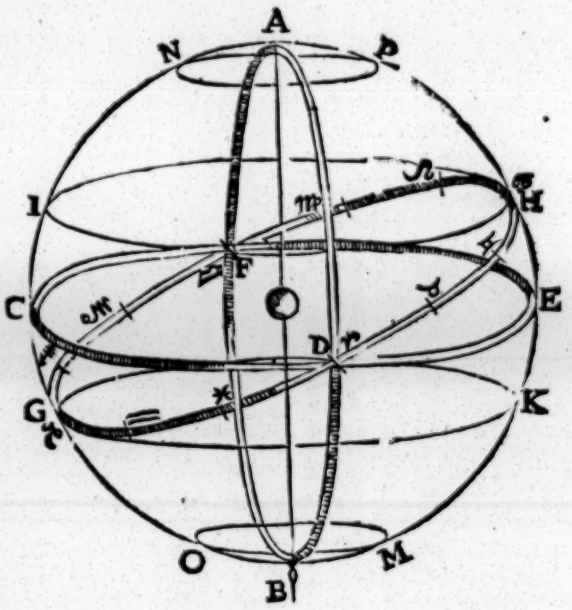
IN the foregoing Figure A. F. B. D. is the Colours of the Equinoctialls, goingh through D. and F. the points of the Equinoctiall in the beginnings of Aries and Libra and throug the Poles A. and B. A. C. G. B. M E. H. the Colurus of the Solſtices in the beginnings of Cancer, & Capricornus where Ecliptique is fartheſt diſtant from the Equinoctiall line through the Poles of the World A and B. and through the Poles of the Zodiack M. and N. cutting one another through croſſe wayes with right cornere in the Poles A. and B. & deviding the Zodiaque or Ecliptique in 4. parts, as D. H. H. F. F. G. and G. D. the firſt of which the Sonne wanders through in the Spring, the ſecond in the Summers the third in the Autume, and the fourth in the Winter.

Theſe foreſayd Circles of the Spheare are all greate Circles that is compaſſing the Spheare at the wideſt deviding the ſame into two equal parts, there follow now 4 ſmall circles which devide the Spheare into unequall parts.

The Ninth Point, Concerning the Tropickes and the Artique and Antartique Circles.

THE Tropiques are two Circles, the one northwards and the other ſouthwards from the Equinoctiall & a like wide with the ſame which through turning about of the Spheare from the Points of the Ecliptique are fartheſt diſtant from the Equinoctiall, and are placed the one to the North and is called the Tropique of Cancer, and the other to the South and is called the Tropique of Capricornus.

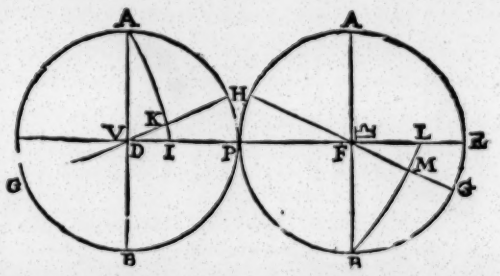
Circulus Articus the Northerne Circkle and Circulus Antarticus the Southerne Circkle are reckoned through the runningh about of the Spheare from the Poles of the Ecliptique.



Demonſtration.

IN this Figure H. I. is the Tropicke of Cancer which through the turning about of the Spheare is written from the Point H. the beginningh of Cancer is alſo ſo called, becauſe that the Sonne comming to that point, fartheſt from the Equinoctiall towards the North, turneth then againe through the Crabfiſh towards the Equinoctiall, G. K. is the Tropique of Capricornus, ſo cauſed through the running about of the Spheare from the point G. the beginningh of Capricornus or the Goate and is ſo called becauſe the Sonne commingh to that point in the fartheſt from the Equinoctiall towards the ſouth, then turneth againe through the Goate towards the Equinoctiall, N. P. is the Artique Circle and M. O. the Antartique Circle they are ſo called through the runningh about of the Spheare from the Poles of the Zodiaque N. and M. Theſe are equally diſtant from the Poles of the World A. and B. as the Tropique are from the Equinoctiall Line, to witt, 23 Degrees and 31½ Minutes.

The Tenth Point, Of the Suns Declination.



THE Suns Declination is its diſtance from the Equinoctiall Line, and that is two fold towards the North and South.

Demonstration.

THE Suns Declination is causèd through his course alongst the Ecliptique Line thus. Let A bee the Northerne, and B the Southerne Pole of the World, C. P. E the Equinoctiall, G. H. G the Ecliptique Line. The Sonne commingh in the beginningh of Aries on the 21. of March to D. commeth also in the Equinoctial Line, hath besides no Declination neither Norwards nor Southwards, but goingh forwards alonghst the Ecliptique from D. tot H. and comming to K. in the beginningh of Taurus, it shall bee distant and declined from the Equinoctiall Line towards the North from I. to K. 11 degrees and 30 minutes. Going forwards to H. is then at most declined from P. to H. 23 Degrees 31½ Minutes. From thence followingh it is course from H. to F. commeth in the beginningh of Libra againe to the Line without Declination. Goingh forwards from F. towards G. untill M. in the beginningh of Sagitarius, it shall bee distant or declined from the Line F.E. towards the South from L. to M. 20 Degrees 13 Minutes. Commingh to G. it is then at its farthest declination from E. to G. towards the South, from thence it runneth againe to D. to the Equinoctiall Line, perfectingh its course in a yeare.

The Eleaventh Point, How to finde the Sonnes declination upon every day in the yeare.

THE yeare of the Sonne (that is the time wherein the Sonne goet out of a certaine point in the Ecliptique, and turneth againe into the same) and is not just 365. dayes, but about 5. houres and 49. minutes (that is little lesse then 6. howers more, whereof it is that wee alwayes adde after three yeares to the South 4. times 6. howers that is a day to the Month February thereby to count the yeare or Revolation of the Sonne into equall dayes, therefore every such fourth yeare is called the Leap-yeare. If therefore you will then sett the Sonnes Declination by day tables it is needfull to make foure sundry tables of foure such followingh yeares. The foresayd difference of foure Revolutions of the Sonne come not equally a like with such foure yeares, being with length of time so much difference in the Declination that is needfull to renew such Tables every 20 yeares.

Now to find the Declination of the Sonne out of such Table upon every day of the yeare it is needfull to know two thinghs, the first in what yeare you are, either the Leap-yeare, or in the first, second or third yeare after. The second, when you know the yeare which of the Tables you must use there to.

For the first, devide the yeare of our Lord 1600. by 4 if the devision commeth even out without remainders, such a yeare is then a Leap-yeare of 366. dayes, but if out of the division any number remaineth, such remainders shew you how much that such a proposed yeare is after the Leape-yeare.

The first Example

I Desire to know what for a yeare 1664 is leaving the 1600. take & devide the remaining 64 by 4 that commeth even out without remainders for 14 times. 4 is 66. and from thence. I find that the yeare 1664. to bee a Leape-yeare.

The second Example.

FOR to know what sort of yeare 1667 is, leavingh the 1600. I divide the 67. by 4. and finde that there rest 3 for 16. times 4 is 47. take that from 67. and there remaine, 3 and from thence. I find that the yeare of 67. is the third yeare after the Leape-yeare.

To know the same without reckoning, consider this following litle Table, the first Columne is of the Leape-yeares, the second, third & fourth Columne are the three yeares after the Leape-yeares.

Leape yeare.	1 yeare.	2 yeare.	3 yeare.
1668	1669	1670	1671
1672	1673	1674	1675
1676	1677	1678	1679

The second for to know which Table you must use to every yeare that standeth demonstrated above each of the followingh Tables.

The first Example.

IN the second yeare followingh the Leape yeare upon the 20 of May, I desire to know the Sonnes Declination: I seeke in the Tables the Month of May, in the second yeare and there under in the first Columne of the Figures the twentieth day, I find in the second Columne 20, 4. That is 20 degrees and 4 minutes, to bee the Sonnes Declination. And seeingh that is betweene the 20 of March, and the 23 of September (that the Sonne is by northwards of the Line) soo come it to passe that the Declination is Northerly.

The second Example.

UPon the 12 of February in the Leape-yeare, I desire to know the Sonnes Declination seeke therefore in the Table of Leape yeares the Month of February, and count in the first Columne to the 12 day, and you finde there by it 13 degrees and 14 minutes for the Declination of the Sonne on that day; seeingh that it is betweene the 23 of September and 20 of March, that the Sonne goeth by south the Line, The Declination is then Southerly.

Now follow the Tables of the Sonnes Declination reckoned properly, upon the length of the earth or Meridian of Englands Lands-End, because that this length is used most by our Netherland seamen as well in runningh, upon the Channell of the Sea, as alonghst the Coasts of France, Portugal and Spaine.

NOTA.

LOOK how many degrees and minutes the Line is raised above the Horizon, just so many degrees, and minutes are there between the point right over your head, called the Zenith and the Pole, and thence it followeth, that as many degrees and minutes as here betweene the Zenith and the Line, just as many are there from the Horizon to the Pole; that is to say, so many degrees is the Pole elevated, therefore when we say we are in such a beigt, we understand that we are so many degrees on the north or the south-side of the Line. This rule and instruction is universall and common through out the whole World both in the north and south-side of the line.

An Admonition to the Reader.

IF a man would observe the heigt of the Sun, it is necessary that the know how many foot he stands above the water, for the higher a man stand the farther hee is from the Horizon, because that from the eye to the Horizon, is 60 degrees, if wee stand waterpas, as they call it, but if he stand higher then the water, as is sayd, it well bee more then 60 degrees to the Horizon: And to mend this fault. I have here placed a table, thereby to know whether wee stand higher then the water or no, and how many minutes difference it makes, and also how much neerer the eye crosse standeth, then adding the minutes to that which the crosse standeth below the Zenith, so shall you mend the fault, that is to say, that you see the crosse so many minutes downward; look on the table followingh.

Example.

In this height above the earth.	
feet.	minutes.
2	1
4	2
8	3
14	4
20	5
27	6
39	7
53	8
67	9
82	10
160	11
118	12
140	13
163	14
180	15

LET your eye be above the water, suppose 27 feet, that the crosse may stand 45 degrees from the Zenith (that is, beginningh to tell from that end where the eye is) these 27 feet beingh sought in the first rancke, or Columne of the Table, and you shall find over against it 6 minutes, so much is the Horizon below, that which they call the waterpas or the surface of the water, and so many feet must the crosse be thrust downward, so will it fall out 45 degrees 6 minutes, where the crosse ought to be.

Of the vapours and exhalations which the Sunne, Moon & Stars, as they are nearer the Horizon do seem to draw up more, as in deed and truth they are.

EXperience reacheth, that the lights of heaven by how much they are nearer the Horizon, by soo much doe they seeme to be higher then indeed they are; and by reason of the fumes and damps, which continually arise and as they are nearer the Horizon, soo much are they more thick, and risingh by little and little, they lessen, and at the least are cleane vanished, and as wee come nearer the Pole, the vapours do more and more increase, and for that cause doe the lights seeme to be higher than they are. Yea it is found abont the height of 83 degrees towards the north, that the Sunne seemeth to be 40 minutes higher than in truth it is, this hath that famous Astronomer Ticho Brahe searched out and written in Denmarck, as you may see in this table.

A Table of the rising of the Sunne.

	Degres.	Minutes.		
	0	34		
	1	26		
	2	20		
When the	3	15	highes	
Sunne if doe	4	13	than	
on be hight,	7	seemes 10	indeed	
	10	7	it is.	
	15	3		
	23	1		
	32			

A Table of the rising of the starres.

Degrees.	Minutes.		
0	30		
1	22	To be	
2	15	higher	
when the 4	seeme 11	than in-	
7	8	deed	
starres are 11	5	they are.	
of the hight. 15	3		

The use of this table will we declare by an example and what soever is sayd of the rising of the Sunne, the same may bee sayd of the Starres.

Example.

LET die height of the Sun be measured; and found to be 7 degrees above the Horizon, and in the table of the Sunne above written, there are 13 minutes which the Sun seemeth to be higher than it is, therefore substract 13 Minutes from the 7 Degrees, there will remaine 6 degrees 47 minutes for the true height of the Sun.

But if we take the distance of the Sun from the Zenith according to this example, it would de found to 63 degrees, and the 13 minutus added to the 83 degrees, the product is 83 degr. 13 min. for the true distance of the Sun from the Zenith, then if we take 83 degr. 13 minut. from 90 degrees, there will remaine 6 degrees 47 minutes as before, and so will it be in all the other.

Drodagh
Male heal
Male torren
Skerus
Roc abil
Dundalck
NOORYE
Carlingfoort
Neury
Narro water
Gren castel
Mores van Carlingfoort
ZYDE
Dondrom
S. Iams point
S. Iams haven
Ayglas
YERL
Strangfoort
Grunne eyl.
Anallay
Longh Cone
Bangor
Apoest van Molins oste hoeck van Arglas
Briall:
Sommige huysen
Noord rock
Zuyd rock
Ploegh
Coplands
Moul van Galive
I. Man
SCHOT
Duytsche mylen 15 in
Spaensche mylen 17½
Eng. en Fra. mylen 20
Van Caap de
hoe
By I

...ord ooſt zyde van
...ELANDT
...tot aen Hedehde ; Als mede
hoe ... Schotlant gelegen is.
Amſterdam
By I... Theuniſz. op't water in de
Loots man.

Verthoninghe vande Rivier van Dunbriton aende weſtzyde van Schotlant

Dunbriton

Duitſche mylen

Lammoſh Lemme ile

Cumrayes

Scheeps haven

Loughswilly haven

Ramolle

Enes

Dery

Steen

Boom. ofte Tree

Kilmor

Buneraugh

Vuyle sand bay

Robben Eyl.

Boomen ofte Trees

Wit Caſtel

Rod Caſtel

De Reed

Mazillions point

Cobam caſtel

Green Caſtel

Lough Foyl haven

Coldhaven

Ooms gat

Ly haven

Emiſthon

Eylanden van Enſterhul

Banthaven

Caſtel

Skeres portruß

Donluze Caſt

Kirckens

Port Belletrio

Belfaſt

Knockergus

Olſſhet

Slecht landt

Hoogh hoeck

Schorre hoeck

Caſtel

C. Pingore

Schreps lant

Fairſforland

Ranghleens

De Mayds

I. Kow

I. Kno

C. Cantyr

Ile Sondt

Yley

Longendal

Surey

Elzee

ngreau

L A N D T

The TABLE,

Of the Suns Declination, after the New-Stile.

For the LEAP-JEARE.

January.		Februar.		March.		April.		May.		June.		July.		August.		Septemb		October		Novemb		Decemb	
da.	gr. mi.	da.	gr. mi	da.	gr. mi.	da.	gr. mi.	da.	gr. mi.	da.	gr. mi	da.	gr. mi.	da.	gr. mi.	da.	gr. mi.	da.	gr. mi.	da.	gr. mi.	da.	gr. mi.
1	23. 5	1	17. 7	1	7.11	1	4.57	1	15.25	1	22.15	1	23. 9	1	17.54	1	8. 1	1	3.32	1	14.58	1	22. 3
2	23. 0	2	16.50	2	6.48	2	5.20	2	15.43	2	22.23	2	23. 4	2	17.39	2	7.39	2	3.55	2	15. 7	2	22.12
3	22.54	3	16.32	3	6.25	3	5.43	3	16. 0	3	22.30	3	22.59	3	17.23	3	7.17	3	4.18	3	15.26	3	22.20
4	22.48	4	16.14	4	6. 2	4	6. 6	4	16.17	4	22.37	4	22.54	4	17. 2	4	7.55	4	4.42	4	15.45	4	22.28
5	22.41	5	15.56	5	5.39	5	6.29	5	16.34	5	22.44	5	22.48	5	16.51	5	6.33	5	5. 5	5	16. 3	5	22.35
6	22.34	6	15.38	6	5.15	6	6.52	6	16.51	6	22.50	6	22.42	6	16.34	6	6.10	6	5.28	6	16.21	6	22.42
7	22.26	7	15.19	7	4.52	7	7.14	7	17. 8	7	22.56	7	22.36	7	16.17	7	5.48	7	5.51	7	16.39	7	22.49
8	22.18	8	15. 0	8	4.28	8	7.36	8	17.24	8	23. 1	8	22.29	8	16. 0	8	5.25	8	6.14	8	16.56	8	22.55
9	22.10	9	14.41	9	4. 5	9	7.59	9	17.40	9	23. 6	9	22.22	9	15.43	9	5. 2	9	6.37	9	17.13	9	23. 1
10	22. 1	10	14.21	10	3.41	10	8.21	10	17.55	10	23.10	10	22.14	10	15.25	10	4.39	10	7. 0	10	17.30	10	23. 6
11	21.52	11	14. 2	11	3.17	11	8.43	11	18 11	11	23.14	11	22. 6	11	15. 7	11	4.16	11	7.23	11	17.46	11	23.11
12	21.42	12	13.42	12	2.54	12	9. 5	12	18.26	12	23.18	12	21.57	12	14.49	12	3.53	12	7.46	12	18. 2	12	23.15
13	21.32	13	13.22	13	2.30	13	9.27	13	18.40	13	23.21	13	21.48	13	14.30	13	3.30	13	8.59	13	18.18	13	23.19
14	1	14	13. 1	14	2. 7	14	9.48	14	18.55	14	23.24	14	21.39	14	14.11	14	3. 7	14	8.31	14	18.33	14	23.22
15	21.10	15	12.40	15	1.43	15	10. 9	15	19. 9	15	23.26	15	21.20	15	13.52	15	2.44	15	8.53	15	18.48	15	23.25
16	20.59	16	12.19	16	1.20	16	10.30	16	19.23	16	23.28	16	21.19	16	13.33	16	2.31	16	9.15	16	19. 3	16	23.27
17	20.47	17	11.58	17	0.56	17	10.51	17	19.36	17	23.30	17	21. 9	17	13.14	17	1.58	17	9.37	17	19.18	17	23.29
18	20.35	18	11 ♓37	18	0.32	18	11 ♉12	18	19.49	18	23.31	18	20.59	18	12.55	18	1.34	18	9.59	18	19.32	18	23.30
19	20♒23	19	11.16	19	0 ♈ 8	19	11.33	19	20 II2	19	23.32	19	20.48	19	12.35	19	1.11	19	10.21	19	19.46	19	23.31
20	20.10	20	10.54	20	0N15	20	11.54	20	20.14	20	23.32	20	20.36	20	12.15	20	0.47	20	10.43	20	20. 0	20	23.32
21	19.57	21	10.33	21	0.39	21	12.14	21	20.26	21	23♋32	21	20.24	21	11.55	21	0.24	21	10. 4	21	20.13	21	23♍32
22	19.43	22	10.11	22	1. 3	22	12.34	22	20.38	22	23.31	22	20♌12	22	11 ♍34	22	0. S.0	22	11 ♍25	22	20 ♎26	22	23.32
23	19.29	23	9.49	23	1.27	23	12.54	23	20.49	23	23.31	23	20. 0	23	11.14	23	0♎24	23	11.46	23	20.38	23	23.31
24	19.14		9.27	24	1.50	24	13.14	24	21. 0	24	23.30	24	19.47	24	10.53	24	0.47	24	12. 7	24	20.50	24	23.29
25	18.59	25	9. 4	25	2.14	25	13.34	25	21.10	25	23.29	25	19.34	25	10.32	25	1.11	25	12.28	25	21. 2	25	23.27
26	18.44	26	8.42	26	2.38	26	13.53	26	21.21	26	23.27	26	19.21	26	10.11	26	1.34	26	12.49	26	21.13	26	23.25
27	18.29	27	8.19	27	3. 1	27	14.12	27	21.31	27	23.24	27	19. 7	27	9.50	27	1.58	27	13.10	27	21.24	27	23.22
28	18.13	28	7.57	28	3.25	28	14.31	28	21.41	28	23.21	28	18.53	28	9.29	28	2.21	28	13.30	28	21.34	28	23.19
29	17.57	29	7.34	29	3.48	29	14.49	29	21.50	29	23.17	29	18.39	29	9. 7	29	2.45	29	13.50	29	21.44	29	23.15
30	17.41			30	4.11	30	15. 7	30	21.59	30	23.13	30	18.24	30	8.45	30	3. 8	30	14.10	30	21.54	30	23.11
31	17.24			31	4.34			31	22. 7			31	18. 9	31	8.23			31	14.29			31	23. 6

The TABLE,

Of the Suns Declination, after the New-Stile;

The first Yeare after the LEAP-JEARE.

nuary		bruar.		March.		April.		May.		June.		July.		Auguſt.		Septem.		October		Novem.		Decemb	
da.	gr. mi.	da.	gr mi.	da.	gr. mi.	da	gr. mi.	da	gr. mi.	da.	gr. mi.	da.	gr. mi.	da.	gr. mi.	da.	gr. mi.	da.	gr. mi.	da.	gr. mi.	da	gr. mi.
1	23. 1	1	16.54	1	7.17	1	4.51	1	15.20	1	22.13	1	23.10	1	17.59	1	8. 8	1	3.25	1	14.42	1	22. 1
2	22.55	2	16.36	2	6.54	2	5.14	2	15.38	2	22.21	2	23. 5	2	17.44	2	7.46	2	3.48	2	15. 1	2	22.10
3	22.49	3	16.18	3	6.31	3	5.37	3	15.55	3	22.28	3	23. 0	3	17.28	3	7.24	3	4.12	3	15.20	3	22.18
4	22.42	4	16. 0	4	6. 8	4	6. 0	4	16.13	4	22.35	4	22.55	4	17.12	4	7. 2	4	4.35	4	15.39	4	22.26
5	22.35	5	15.42	5	5.45	5	6.23	5	16.30	5	22.41	5	22.50	5	16.55	5	6.39	5	4.58	5	15.57	5	22.34
6	22.28	6	15.23	6	5.22	6	6.35	6	16.46	6	22.47	6	23.44	6	16.39	6	6.16	6	5.22	6	16.15	6	22.41
7	22.20	7	15. 4	7	4.58	7	7. 8	7	17. 3	7	22.53	7	22.38	7	16.22	7	5.54	7	5.45	7	16.33	7	22.48
8	22.12	8	14.45	8	4.35	8	7.30	8	17.19	8	22.58	8	22.31	8	16. 5	8	5.31	8	6. 8	8	16.51	8	22.54
9	22. 3	9	14.26	9	4.11	9	7.53	9	17.35	9	23. 3	9	22.24	9	15.48	9	5. 8	9	6.31	9	17. 8	9	23. 0
10	21.54	10	14. 6	10	3.48	10	8.15	10	17.51	10	23. 8	10	22.16	10	15.30	10	4.46	10	6.54	10	17.25	10	23. 5
11	21.44	11	13.47	11	3.24	11	8.37	11	18. 6	11	23.12	11	22. 8	11	15.12	11	4.23	11	7.17	11	17.42	11	23.10
12	21.34	12	13.27	12	3. 1	12	8.59	12	18.21	12	23.16	12	22.59	12	14.54	12	4. 0	12	7.39	12	17.58	12	23.14
13	21.24	13	13. 6	13	2.37	13	9.20	13	18.36	13	23.20	13	21.50	13	14.36	13	3.36	13	8. 2	13	18.14	13	23.18
14	21.13	14	12.46	14	2.13	14	9.42	14	18.51	14	23.23	14	21.41	14	14.17	14	3.15	14	8.24	14	18.30	14	23.21
15	21. 2	15	12.25	15	1.50	15	10. 3	15	19. 5	15	23.26	15	21.32	15	13.58	15	2.50	15	8.47	15	18.45	15	23.14
16	20.50	16	12♓4	16	1.26	16	10.24	16	19.19	16	23.18	16	21.20	16	13.39	16	2.27	16	9. 9	16	19. 0	16	23.27
17	20.38	17	11.43	17	1. 2	17	10.45	17	19.33	17	23.29	17	21.12	17	13.20	17	2. 3	17	9.31	17	19.15	17	23.29
18	20.26	18	11.22	18	0.39	18	11. 6	18	19.46	18	23.30	18	21. 1	18	13. 0	18	1.40	18	9.53	18	19.29	18	23.30
19	20.13	19	11. 4	19	0♈15	19	11♉27	19	19. 59	19	23.31	19	20.50	19	12.40	19	1.17	19	10.15	19	19.43	19	23.31
20	20♒0	20	10.39	20	0N 9	20	11.48	20	20.11	20	23.32	20	20.39	20	12.20	20	0.53	20	10.37	20	19.57	20	23.32
21	19.46	21	10.17	21	0.33	21	12. 8	21	20 II23	21	23.32	21	20.28	21	12. 0	21	0.30	21	10.54	21	20.10	21	23♍32
22	19.32	22	9.55	22	0.57	22	12.28	22	20.35	22	23♋32	22	20.16	22	11♍40	22	0 ♎ 6	22	11.20	22	20 ♎23	22	23.32
23	19.18	23	9.33	23	1.20	23	12.48	23	20.46	23	23.31	23	20♌4	23	11.20	23	0.17	23	11♍41	23	20.35	23	23.31
24	19. 3	24	9.11	24	1.44	24	13. 8	24	20.57	24	23.30	24	19.51	24	10.59	24	0.41	24	12. 2	24	20.47	24	23.30
25	18.48	25	8.48	25	2. 8	25	13.27	25	21. 8	25	23.29	25	19.38	25	10.38	25	1. 4	25	12.23	25	20.59	25	23.28
26	18.33	26	8.26	26	2.31	26	13.47	26	21.18	26	23.27	26	19.25	26	10.17	26	1.28	26	12.43	26	21.10	26	23.26
27	18.17	27	8. 3	27	2.55	27	14. 6	27	21.28	27	23.24	27	19.11	27	9.56	27	1.51	27	13. 4	27	21.21	27	23.23
28	18. 1	28	7.40	28	3.18	28	14.25	28	21.38	28	23.21	28	18.57	28	9.35	28	2.15	28	13.24	28	21.32	28	23.20
29	17.45			29	3.42	29	14.43	29	21.47	29	23.18	29	18.43	29	9.14	29	2.38	29	13.44	29	21.42	29	23.16
30	17.28			30	4. 5	30	15. 2	30	21.56	30	23.14	30	18.29	30	8.52	30	3. 2	30	14. 4	30	21.52	30	23.12
31	17.11			31	4.28			31	22. 5			31	18.14	31	8.30			31	14.23			31	23. 7

The

A Short Instruction,

The TABLE,

Of the Suns Declination, after the New-Stile.

The second Yeare after the LEAP-JEARE.

January.		Februar.		March.		April.		May.		June.		July.		August.		Septemb		October		Novemb		Decemb	
da.	gr. mi.	da.	gr. mi	da.	gr. mi	da.	gr. mi.	da.	gr. mi.	da	gr. mi.	da	gr. mi.	da	gr. mi.	da	gr mi.	da	gr. mi.	da	gr. mi.	da.	gr. mi.
1	23. 3	1	16.58	1	7.23	1	4.46	1	15.15	1	22.11	1	23.11	1	18. 2	1	8.13	1	3.19	1	14.38	1	21.59
2	23.57	2	16.41	2	7. 0	2	5.10	2	15.33	2	22.18	2	23. 7	2	17.47	2	7.51	2	3.43	2	15.57	2	2. 8
3	22.51	3	16.23	3	6.37	3	5.33	3	15.51	3	22.25	3	23. 2	3	17.31	3	7.29	3	4. 6	3	15.16	3	22.16
4	22.45	4	16. 5	4	6.14	4	5.56	4	16. 8	4	22.32	4	22.57	4	17.15	4	7. 7	4	4.29	4	15.34	4	22.24
5	22.38	5	15.46	5	5.51	5	6.18	5	16.25	5	22.39	5	22.51	5	16.59	5	6.45	5	4.53	5	15.53	5	22.32
6	22.31	6	15.28	6	5.27	6	6.41	6	16.42	6	22.46	6	22.45	6	16.42	6	6.23	6	5.10	6	16.11	6	22.39
7	22.23	7	15. 9	7	5. 4	7	7. 3	7	16.59	7	22.52	7	22.39	7	16.25	7	6. 0	7	5.39	7	16.29	7	22.46
8	22.15	8	14.50	8	4.41	8	7.26	8	17.15	8	23.57	8	22.32	8	16. 8	8	5.37	8	6. 2	8	16.47	8	22.52
9	22. 6	9	14.31	9	4.17	9	7.48	9	17.31	9	23. 2	9	22.25	9	15.51	9	5.1[illegible]	9	6.25	9	17. 4	9	22.58
10	21.57	10	14.11	10	3.53	10	8.10	10	17.47	10	23. 7	10	22.18	10	15.34	10	4.52	10	6.48	10	17.21	10	23. 3
11	21.47	11	13.51	11	3.29	11	8.32	11	11. 3	11	23.11	11	22.10	11	15.16	11	4.29	11	7.11	11	17.38	11	23. 8
12	21.37	12	13.31	12	3. 6	12	8.54	12	18.18	12	23.15	12	22. 2	12	14.58	12	4. 6	12	7.34	12	17.54	12	23.12
13	21.27	13	13.11	13	2.42	13	9.16	13	18.33	13	23.19	13	21.53	13	14.40	13	3.43	13	7.57	13	18.10	13	23.16
14	21.16	14	12.50	14	2.18	14	9.37	14	18.47	14	23.22	14	21.44	14	14.21	14	3.20	14	8.19	14	18.26	14	23.20
15	21. 5	15	12.30	15	1.55	15	9.59	15	19. 2	15	23.25	15	21.35	15	14. 2	15	2.57	15	8.41	15	18.41	15	23.23
16	20.53	16	11. 9	16	1.31	16	10.20	16	19.16	16	23.27	16	21.22	16	13.43	16	2.33	16	9. 4	16	18.56	16	23.26
17	20.41	17	11 ♓48	17	1. 7	17	10.41	17	19.29	17	23.29	17	21.15	17	13.24	17	2.10	17	9.26	17	19.11	17	23.28
18	20.29	18	11.27	18	0.43	18	11. 1	18	19.42	18	23.30	18	21. 4	18	13. 4	18	1.46	18	9.46	18	19.25	18	23.30
19	20.16	19	11. 5	19	0♈20	19	11 ♉32	19	19.55	19	23.31	19	20.53	19	12.45	19	1.23	19	10.10	19	19.39	19	23.31
20	20♊3	20	10.44	20	0 N 4	20	11.43	20	20♍8	20	23.32	20	20.42	20	12.25	20	0.59	20	10.31	20	19.53	20	23.32
21	19.50	21	10 22	21	0.28	21	12. 3	21	20.20	21	23.32	21	20.31	21	12. 5	21	0.26	21	10.53	21	20. 6	21	23♏3
22	19.36	22	10. 0	22	0.51	22	12.23	22	20.32	22	23♋32	22	20.19	22	11 ♍44	22	0♎12	22	11 ♎14	22	20 ♐19	22	23.32
23	19.22	23	9.38	23	1.15	23	12.43	23	20.44	23	23.31	23	20♌7	23	11.24	23	0.11	23	11.35	23	20.32	23	23.31
24	19. 7	24	9.16	24	1.39	24	13. 3	24	20.55	24	23.30	24	19.54	24	11. 4	24	0.35	24	11.56	24	20 44	24	23 24
25	18.52	25	8.54	25	2. 2	25	13.23	25	21. 6	25	23 29	25	19.41	25	10.43	25	0.58	25	12.17	25	20 56	25	23.28
26	18.37	26	8.31	26	2.26	26	13.42	26	21.17	26	23.27	26	19.28	26	10.23	26	1.22	26	12.38	26	21. 8	26	23 26
27	18.21	27	8. 8	27	2.20	27	14. 1	27	21.27	27	23.25	27	19.15	27	10. 1	27	1.45	27	12.58	27	21.19	27	23.23
28	18. 5	28	7.46	28	3.13	28	14.20	28	21.36	28	23.22	28	19. 1	28	9.40	28	2. 9	28	13.18	28	21.30	28	23.20
29	17.49			29	3.36	29	14.39	29	21.45	29	23.19	29	18.47	29	9.19	29	2.32	29	13.38	29	21.40	29	23.17
30	17.32			30	3.59	30	14.57	30	21.54	30	23.15	30	18.32	30	8.57	30	2.56	30	13.58	30	21.50	30	23.13
31	17.15			31	4.23			31	22. 3			31	18.17	31	8.35			31	14.18			31	23. 9

The TABLE,

Of the Suns Declination, after the New-Stile,

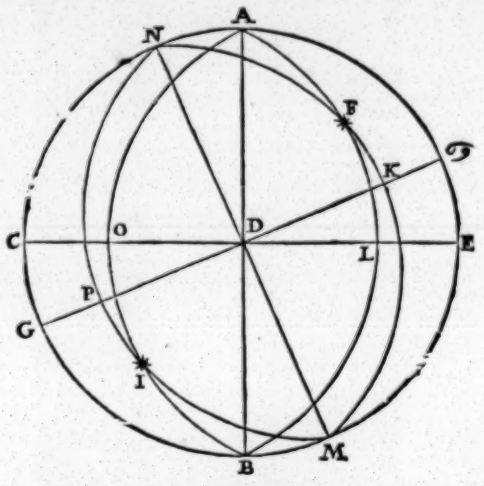
The third Yeare after the LEAP-JEARE.

January		Februar.		March.		April		May		June.		July.		August.		Septem		October		Novem.		Decemb	
da.	gr. mi	da	gr. mi.	da.	gr. mi.	da	gr. mi.	da	gr. mi	da	gr. mi.	da	gr. mi.	da	gr. mi.	da	gr. mi	da.	gr. mi.	da.	gr. mi.	da	gr. mi.
1	23. 4	1	17. 3	1	7.29	1	4.40	1	15.11	1	22. 9	1	23.12	1	18. 6	1	8.19	1	3.14	1	14.33	1	21.56
2	22.58	2	16.46	2	7. 6	2	5. 2	2	15.20	2	22.17	2	23. 8	2	17.51	2	7.47	2	3.37	2	14.52	2	22. 5
3	22.52	3	16.28	3	6.43	3	5.26	3	15.47	3	22.25	3	23. 3	3	17.35	3	7.35	3	4. 1	3	15.11	3	22.14
4	22.46	4	16.10	4	6.20	4	5.29	4	16. 4	4	22.32	4	22.58	4	17.19	4	7.13	4	4.24	4	15.30	4	22.22
5	22.40	5	15.51	5	5.56	5	6.12	5	16.21	5	22.35	5	22.53	5	17. 3	5	6.51	5	4.47	5	15.49	5	22.30
6	22.33	6	15.32	6	5.33	6	6.34	6	16.38	6	22.41	6	22.47	6	16.47	6	6.28	6	5.1[illegible]	6	16. 7	6	22.37
7	22.25	7	15.13	7	5. 9	7	6.57	7	16.55	7	22.51	7	22.41	7	16.30	7	6. 6	7	5.34	7	16.25	7	22.44
8	22.17	8	14.54	8	4.46	8	7.20	8	17.11	8	22.59	8	22.34	8	16.13	8	5.34	8	5.57	8	16.43	8	22.50
9	22. 8	9	14.35	9	4.22	9	7.42	9	17.27	9	23. 1	9	22.27	9	15.56	9	5.20	9	6.20	9	17. 0	9	22.56
10	21.59	10	14.16	10	3.59	10	8. 4	10	17.43	10	13. 6	10	22.20	10	15.38	10	4.57	10	6.43	10	17.17	10	23. 2
11	21.49	11	13.56	11	3.35	11	8.26	11	17.49	11	13.10	11	22.12	11	15.20	11	4.53	11	7. 6	11	17.34	11	23. 7
12	21.39	12	13.36	12	3.11	12	8.48	12	18.14	12	13.14	12	22. 4	12	15. 2	12	4.12	12	7.28	12	17.50	12	23.11
13	21.29	13	13.16	13	2.48	13	9.10	13	18.29	13	23.18	13	21.55	13	14.44	13	3.49	13	7.51	13	18. 6	13	23.15
14	21.18	14	12.56	14	2.24	14	9.31	14	18.44	14	23.21	14	21.46	14	14.26	14	3.26	14	8.13	14	18.22	14	23.18
15	21. 7	15	12.35	15	2. 0	15	9.53	15	18.58	15	23.24	15	21.37	15	14. 7	15	3. 2	15	8.36	15	18.37	15	23.21
16	20.56	16	12.14	16	1.37	16	10.14	16	19.12	16	23.27	16	21.27	16	13.48	16	2.39	16	8.59	16	18.52	16	23.24
17	20.44	17	11.53	17	1.13	17	10.35	17	19.26	17	23.29	17	21.17	17	13.29	17	2.15	17	9.21	17	19. 7	17	23.27
18	20.32	18	11.32	18	0.49	18	10 ♉56	18	19.39	18	23.30	18	21. 7	18	13. 9	18	1.52	18	9.43	18	19.22	18	23.29
19	20.29	19	11 ♓11	19	0.26	19	11.17	19	19.52	19	23.31	19	20.56	19	12.50	19	1.28	19	10. 4	19	19.36	19	23.31
20	20♊7	20	10.49	20	0 ♈2	20	11.38	20	20. 5	20	23.32	20	20.45	20	12.30	20	1. 5	20	10.26	20	19.50	20	23.32
21	19 54	21	10.27	21	0N22	21	11.58	21	20 ♓17	21	23.32	21	20.34	21	12.10	21	0.41	21	10.48	21	20. 3	21	23♍32
22	19.40	22	10. 5	22	0.35	22	12.18	22	20.29	22	23♉23	22	20.22	22	11 ♏50	22	0♎18	22	11. 9	22	20 ♐16	22	23.32
23	19.26	23	9.53	23	1. 9	23	12.38	23	20.41	23	23.31	23	20♌10	23	11.30	23	0. 6	23	11 ♐31	23	20.29	23	23.31
24	19.11	24	9.21	24	1.33	24	12.58	24	20.52	24	23.30	24	19.57	24	11. 9	24	0.29	24	11.52	24	20.41	24	23.30
25	18.56	25	8.58	25	1.56	25	13.18	25	21. 3	25	23.29	25	19.44	25	10.48	25	0.53	25	12.13	25	20.53	25	23 29
26	18.41	26	8.36	26	2.20	26	13.37	26	21.14	26	23.27	26	19.31	26	10.27	26	1.19	26	12.34	26	20. 4	26	23.27
27	18.25	27	8.14	27	2.44	27	13.56	27	21.24	27	23.25	27	19.18	27	10. 6	27	1.40	27	12.54	27	20.19	27	23.24
28	18. 9	28	7.51	28	3. 7	27	14.15	28	21.34	28	23.22	28	19. 4	28	9.45	28	2. 3	28	13.14	28	21.27	28	23.21
29	17.53			29	3.30	28	14.34	29	21.43	29	23.19	29	18.50	29	9.24	29	2.27	29	13.35	29	21.37	29	23.18
30	17.37			30	3.54	29	14.53	30	21.52	30	23.16	30	18 36	30	9. 3	30	2.50	30	13.55	30	21.47	30	23.14
31	17.20			31	4.17			31	22. 1			31	18.21	31	8.41			31	14.14			31	23.10

The

The 12. Chapter, Of the length and the breath of the fixed Starres.

THE Starres of the eigth heaven are called Fixed Starres, becauſe (unlike the Plannets without motion) they ſtand alwayes faſt and fixed in one faſhion and diſtance one from the other, & are carryed about altogether one with the other by the *Primum Mobile:* they are marked accordingh to length and breath. Their length is a part of the Ecliptique, containet betweene two halfe circles, goingh both out of the Poles of the Ecliptique, the one trough the ſpring Equinoctial, or the beginning of Aries, the other through the Starres them ſelves. Their breath is a Bow of the like halfe Circle betweene the Ecliptique Line and the Starres: that is two fold Northerly & Southerly, the Northerly which are Northwards from the Ecliptique, and the Souteherly which ſtand Southward from them.



Demonſtration.

LET the Ecliptique Line bee G. D. H. Let N. bee the Northerne, & M. the Southerne Pole there of: F. a certaine Starre. Let two halfe Circle bee drawne out of the forefayd Poles, the one N. D. M. throug the ſpring Equinoctiall to D. The other through the Starre F. devidingh the Ecliptique in K: that part of the Ecliptique D. K. is the length of ſuch a Starre, and the Bow or part of the ſaid halfe Circle K. F. is his breath towards the North, becauſe that it ſtandeth by North of the Ecliptique.

The 13. Chapter, Concerning the right Aſcenſion and Declination of the fixed Starres.

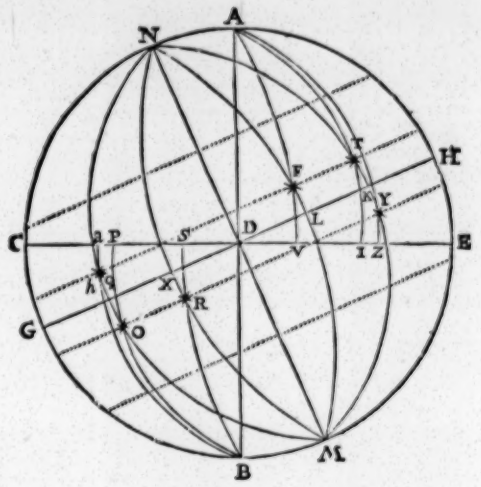
THE rigt Aſcenſion of the Starres is a part of the Equinoctiall, containe betweene two halfe circles, goingh both out of the Poles of the World, the one trough the ſpring Equinoctiall, the other through the Starres. Their declination, beeing a bow of the like halfe circle betweene the Equinoctiall and the ſaid ſtarres. This is alſo two fold Northerly that which is by north the Line, and Southerly which ſtand by ſouth from it.

Demonſtration.

IN tke foregoingh Figure, let C. D. E. bee the Equinoctiall line. A. the North, and B. the ſouth Pole of the world, F. a certaine Starre; draw two halfe Circles out of the foreſayd Poles, the one A. D. B. through the Equinoctiall or beginning of Aries, the other trough the Starre marked with F. which devideth the Equinoctiall in L. The part of the Equinoctial L. D. is the right Aſcenſion of ſuch a Starre and the Bow or part of the ſame Circle L. F. his declination towards the North, or O. I. from the ſtarre to I towards the ſouth.

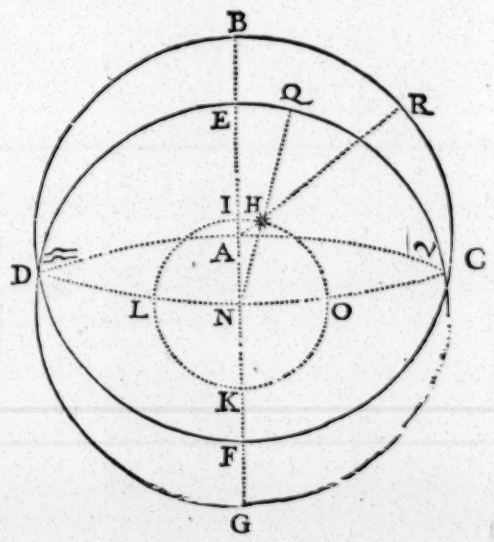
The 14. Chapter, Concerning the change of the declination of the fixed Starres.

EVEN as the ſtarry heaven in out ſigt is driven about every 24 howres by the *Primum Mobile* upon the axe-poynts or Poles of the world from eaſt to weſt: ſo are theſe alſo carried about upon the Poles of the Ecliptique Line once in 25400 yeares, on the contrary from weſt to eaſt, even as the Sun once every yeare. By which the length of the Starres changeth every hondred yeares one degree, and 25 minutes, or elſe every 20 yeares 17 minutes: but their breath that is the diſtance from the Ecliptique remaineth unchangeable alwayes the ſame. Through the foreſaid chance of the length (by length of time) changeth alſo the declination of the one more and alſo ſoner then of the other ſome are made leſſe and ſome grow bigger. Some of them having northerly declination become ſouther, and ſome others having ſoutherly declination become on the contrary northerly



Demonſtration.

LET CDE. bee the Equinoctiall, A. the northerne & B the ſouthern Pole of the World, G D H the Ecliptique line, N M the Poles, there or G the beginning of Capricorne, D of Aries, and H the end of Gemini or beginning of Cancer, let (as is beforeſaid) the Starre at F. its length be in the Ecliptique to L its breath by north of it at L F. its northerly declination is then V F. If then the foreſaid ſtarre in many yeares runneth in length from F to L paralell with D H, its breath reſteth K T even untill the foregoing F L but its declination I T, is more then V F the firſt becauſe that it beeingh paralell with D H is more wended from the Equinoctiall line. The ſtarre at O whoſe length let it bee in the Ecliptique to Quand its breadeth Q O hath ſoutherly declination P O: but running in length from O to R parallel with Q X its breadth remaineth X R even to Q O but its breadth remaineth X R even to Q O but its ſoutherly declination R S is leſſe then O P becauſe that it being paralell with G D is cowe neerer the Equinoctiall. But if he ſame ſtarre commeth to run in length unto Y its declination ſhall bee Y Z by north the line. That is ſpoken of the ſix firſt ſignes ♑ ♒ ♓ ♈ ♉ ♊. In the ſame manner commeth to paſſe the contrary part in the other ſignes ♋ ♌ ♍ ♎ & ♏ thus. In the ſame figure let H bee the beginning of Cancer, D Libra, and G the end of Sagitarius. If at Starre at T having Northerly declination T I runneth in length untill F, its declination F V is leſſe then T I, becauſe it is come neare the Equinoctiall, then if ſoo be that it runneth in length untill B. its declination which was firſt northerly ſhall then bee ſoutherly from B. to D. Through the foreſayd motions of the eight Spheare changeth alſo the Declination of the Northſtarre, which is every yeare greater, that is, hee departeth the longer the more from the Equinoctiall, and commeth neerer the Pole, which ſhall endure to the yeare of our Lord 2091. then ſhall hee bee neareſt and no more then ſix and twenty minutes, and a halfe diſtant from it and after that time by little and little ſhall wend from it, ſo that 12700 yeares afterwords it ſhall ſtand from the Pole 47 degrees and 56 minutes. How this commeth to paſſe may plainly bee conceived out of this manner of Figure.



Let A bee the northerne Pole of the world in the middle of the Equinoctiall B. D. F. C. N. the Pole of the Ecliptique in the middle of the Ecliptique E D G C H the North-ſtarre, its breadth from the Ecliptique is Q H 66 degrees and two minutes, and its diſtance from the Pole of the Zodiaque N H 23 degrees and 48 minutes, they remaine alwayes a like even as the breadth and diſtance of all fixed Starres from the Pole of the Zodiaque N H 23 degrees and 58 minutes they remaine alwayes one and the ſame even as the breadth and diſtance of all fixed Starres is from the Zodiaque Pole, as here to fore is ſaid. Its length from the Spring Equinoctiall or beginning of Aries for the yeare 1625. is C Q 83 degrees and 24 minutes.

Let there bee drawne a Circle out of N the Pole of the Ecliptique, as I L K O H; whoſe halfe Diameter let bee N H 23 degrees and 58 minut. even to the diſtance of the Northſtarre from the Zodiaque Pole, there in is cloſed the Northpole of the world at A as beeing leſſe different from the

Zodiaque Pole then the Northſtarre, upon the like Circle the Northſtarre taketh his compaſſe about the Pole of the Zodiaque (even as all the fixed Starres in 25400 yeares, its diſtance from the worlds Pole is for the yeare 1625 A. H. 2 degrees 42 minutes and ſhal in the yeare of our Lord 2091. bee come from H. to I. beeing then neareſt to the worlds Pole, and ſtands no further of then 26½ min. going fowards from I. alongſt to L. until K. it ſhall then bee diſtant from the world Pole marked with A. K. 27 degrees and 56 minutes.

But becauſe the Starres keepe not alwayes one kind of declination, wee have for the furtherance of Mariners prepared theſe two following Tables. The one ſheweth theyr declination for the yeare 1645. And the ſecond for the yeare 1654. Beſides the declination there is adjoyned the complement of the declination that is, how wide they ſtand from the Pole.

A Table of the Declination of the cheife of the fixed Starres, with their diſtance from the Pole, in tho yeare 1645, &c. and 1655.

Theſe Starres following are al of them placed in the Southſide of the Equinoctiall Line, and have ſoutherly Declination.

	Anno 1645. Zoutherly declination. degr.	mi.	the diſtance from the Z. Pole. degr.	mi.	Anno 1655. Zoutherly declination. degr.	mi.	the diſtance from the Z. Pole. degr.	mi.
The Northermoſt in the whales tayle	10	46	79	14	10	43	97	17
The Southermoſt in the whales tayle	19	57	70	3	19	54	70	6
Regel, the left foot of Orion.	8	39	81	21	8	38	81	22
The firſt of the three in the Gridle of Orion, or the 3 Kings.	0	36	89	24	0	36	89	24
The ſecond in the Gridle, or three Kings.	1	27	88	33	1	27	88	33
The third.	2	10	87	50	2	10	87	50
The great dogge, Syrius.	16	13	73	47	16	13	73	47
The heart of the waterſnake.	7	8	82	52	7	10	82	50
Spica Virginis, or the corneare.	9	15	80	45	9	18	80	42
The South Balance.	14	30	75	30	14	33	75	27
The North Balance.	8	1	81	59	8	4	81	56
The Northermoſt and firſt at the Lefthand of the Snakebearer Ophiuchus.	2	46	87	14	2	48	87	12
The left knee of Ophiuchus.	9	46	80	14	9	48	80	12
The right knee of the ſnakebearer.	15	12	74	48	15	13	74	47
Antares the heart of the Scorpion.	25	33	64	27	25	35	64	25
The northermoſt of the two in the hornes of Capricorne.	13	33	76	27	13	32	76	28
The Southermoſt of the two.	15	50	74	10	15	49	74	11
The former or moſt weſterly, of the 2 Starres in the tayle of Capricorne.	18	10	71	50	18	8	71	52
The ſecond moſt eaſterly.	17	39	72	21	17	37	72	23
The left ſhoulder of Aquarius.	7	4	82	56	7	2	82	58
The right ſhoulder of Aquarius.	2	0	88	0	1	57	88	3
The outermoſt of Aquarius named Fomahand.	31	25	58	35	31	22	58	38

Theſe which follow are ſcituate in the Northſide of the Æquinoctiall Line, and Decline Northward.

	Anno 1645. Northerly declination. degr.	mi.	the diſtance from the N. Pole. degr.	mi.	Anno 1655. Northerly declination. degr.	mi.	the diſtance from the N. Pole. degr.	mi.
Alrucuba the northſtar.	87	25	2	35	87	28	2	32
The midlemoſt or brighteſt of the Watchmen.	75	40	14	20	75	37	14	23
The breſt of Caſſiopeia.	54	37	35	23	54	40	35	20
The hippe of Caſſiopeia.	58	49	31	11	58	52	31	8
The knee of Caſſiopeia.	58	22	31	38	58	25	31	35
The brighteſt in the cleare of Caſſio.	57	13	32	47	57	17	32	43
The head of Andromeda.	27	9	62	51	27	12	62	48
The Girdle of Andromeda.	33	47	56	13	33	50	56	10
The moſt Southerly foot of Andromeda.	40	36	49	24	40	39	49	21
The brighteſt in the eaſt of the Ram.	21	46	68	14	21	49	68	11
The brighteſt in the mouth of the Whale.	2	40	87	20	2	42	87	18
The brighteſt in the head of Meduſa.	39	33	50	27	39	35	87	25
The brighteſt in the ſide of Perſeus.	48	31	41	29	48	33	41	27
Aldebaran the South eye of the Bull.	15	48	74	12	15	50	74	10
The North horne of the Bull.	28	16	61	44	28	17	16	43
The South horne of the Bull.	20	54	69	6	20	54	69	6
The left ſhoulder of the Gyant Orion.	5	59	84	1	6	0	34	0
The right ſhoulder of Orion.	7	1°		42	7	18	32	42
Hircus or Capella in the left ſhoulder of the carter Erichtonius.	45	35	44	25	45	36	44	24
The right ſhoulder of Erichtonius.	44	52	45	8	44	52	45	8
The brighteſt in the foot of the twinnes.	16	40	73	20	16	40	73	20
The head of the Northermoſt twinne Caſtor.	32	36	57	24	32	35	57	25
The head of the ſouthermoſt twinne Pollux.	28	50	61	10	28	49	61	11
Procyon the little Dogge.	6	7	83	53	6	6	83	54
Regulus, Baſiliſcus the heart of the Lyon.	13	40	76	20	13	37	76	23
The middlemoſt & cleareſt in the neck of the Lyon.	21	37	68	23	21	34	68	26
The brighteſt in the back of the Lyon.	22	28	67	32	22	24	67	36
The tayle of the Lyon.	16	33	73	27	16	30	73	30
The Northermoſt hinderwheele of the great Wagon.	63	40	26	20	63	37	26	23
The Southermoſt hinderwheele of the great Wagon.	58	17	31	43	58	14	31	49
The Northermoſt forewhele of the Wagon.	59	0	31	0	58	57	31	3
The Souther forewheel of the Wagon.	55	41	34	19	55	37	34	22
The neereſt Horſe to the Wagon.	57	56	32	4	57	53	32	7
The middlemoſt Horſe.	56	40	33	11	56	46	33	14
The uttermoſt Horſe.	51	8	38	5	51	5	8	55
Vindemiatrix the North wing of Virgo.	12	54	77	6	12	51	77	9
The Girdle of the Virgin.	5	22	84	38	5	19	84	41
The left ſhoulder of Bootes.	39	50	50	10	39	47	50	13
The bright Star betwixt the tighes of Bootes Arcturus.	21	5	68	55	21	2	68	58
The brighteſt in the North Crowne.	27	5	62	3	27	55	62	5
The brighteſt in the Neck of the Serpent Ophiuchus.	7	37	82	23	7	35	82	25
The head of Hercules.	14	51	75	9	14	50	75	10
The head of the Serpentbearer.	12	52	77	8	12	51	77	9
The brighteſt in the Dragons head.	51	37	38	23	51	37	38	23
Lyra.	38	30	51	30	38	30	51	30
The tayle of the Eagle.	13	24	76	36	13	25	76	35
Vultur the middlemoſt and brighteſt in the Eagle	8	0	82	9	8	18	81	50
The breſt of the Swan.	39	9	50	51	39	11	50	49
The tayle of the Swan.	44	3	45	57	44	54	45	55
The Girdle of Cephus.	69	1	20	59	69	32	0	57
That in the mouth of Pegaſus.	88	16	81	44	8	18	81	42
Sheat the brighteſt in the legge of Pegaſus.	26	10	63	50	26	13	63	47
Marcab the foot of Pegaſus.	13	19	76	41	13	21	76	39
The uttermoſt in the Wing of Pegaſus.	13	13	76	47	13	16	76	44

By this Table you may finde the declination of any of theſe Starres, in the yeeres betweene, provided, that you proportion the difference of the declination to the difference of the time.

Example.

I deſire to know the Declination of the tayle of the Lyon in the yeere 1650. I find in the Table of the yeere 1645. 16 degrees 33 minutes, and for the yeare 1655. 16 degrees 30 minutes, the minutes having as much taken from them as the yeeres, I finde 16 degrees 31 minutes and a halfe, leſſening declination.

The ſecond Example.

I deſire to know the declination of Aldebaran the eye of the Bullin the yeere 1650. I. finde in the yeere 1645. 15 degrees 48 minutes, & for the yeere 1655. 15 degrees 50 minutes, the minutes having as much taken from them in proportion as the yeeres, I finde 15 degrees 49 minutes, increaſing declination.

The 15. Chapter. How you may eaſily learne to know the fixed Starres and at what time every one of them commeth to the South.

HOw needful and profitable it is for a Sea-faring man to have knowledge of the fixed ſtarres and their uſe, eſpecially in ſtrange voyages, and farre Navigations, that is more then well known to all experienced & unde ſtanding

ding Steerman ; more over, becauſe wee have deſcribed in the foregoing chapter the declination of the fixed ſtarres and their diſtance from the Pole, wee ſhall here ſhew you a way and ſittingh meanes how you ſhall eaſily learne to know them and that perfectly at all times when as every one of them come in the ſouth or at their height, and are ſittingh to be uſed.

Firſt you muſt know that the way of the Sonn in the heaven is immoveable with the fixed Starres with the which it is every day once turned about from eaſt to weſt without change, but onely that the Sonne doth contrary wiſe run this foreſayd yearely courſe from weſt to eaſt. Whereby bee in his daily courſe, commeth ſo farr behind, that thee in a whole yeare goeth one courſe leſſe then the fixed Starres : and that the fixed Starres turne once more about in a yeare then the Sunn, ſo that they every day come four minutes ſooner to the diviſion, that commeth every weeke to about halfe an houre & every mouth two houres, which that it may the better bee underſtood, wee will make it evident by an example taken from the ſtarre called Syrius, or Canis Major the great Dogge, which alwayes followeth a little after the Image of the Gayant Orion and his Gridle which is called the three Kings, wich appeare a little over the great Dogge; it is the greateſt and cleareſt of all the fixed Starres; which for the moſt part is knowne unto all Seafaringmen, his declination is ſouthward from the Line ſixteen degrees and thirteene minutes.

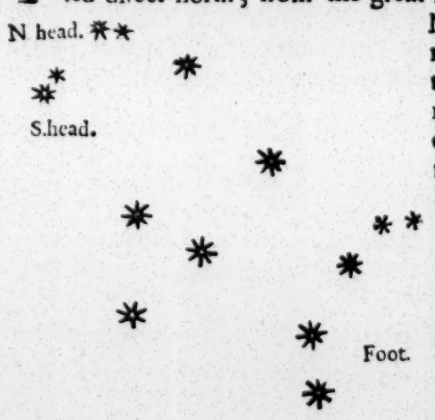
And it is ſouth upon the 24 of Ianuary new ſtile, at ten of the clock at night. The 23 of February at 8 of the clock at night. The 28 of March at ſix of the clock at night. The 30 of April at foure of the clock in the evening. The 30 or May at two of the clock afternoone. The 28 of Iune at 12 of the clock at noone, even with the Sun. The 28 of Iuly, at ten of the clocke before noone. The 29 of Auguſt at eight of the clocke before noone. The 1 of October at ſix of the clock in the morning. The 12 of November at foure of the clock in the morning. The 1 of December at two of the clock in the morning. The 28 of December at 12 of the clock at night.

Whereby every men may eaſily reckon at what houre and time this Starre is ſouth every day in the yeare, as wel in the day time when you cannot ſee it, as in the night when wee may ſee it. And if you deſire to know the like touchingall the reſt of the fixed Starres upon every day in the yeare, then marke what was ſaid before, upon what houre of the day before ſet downe, the great Dogge commeth into the South, and by the Tables here after followingh, touching the declination of the Stars, marke hou long time the Starre you ſeeke for, commeth into the South before or after the great Dogge, & by that meanes you ſhal finde the juſt and perfect time that you deſire.

The 16 Point. The Table of the Declination of the fixed Starres: and alſo an Inſtruction of the time in which each of them commeth into the South, alſo how you ſhall know them.

The Thwinnes.

THE figure Gemini (in Engliſh the Twinnes) is ſhituated direct north, from the great Dogge or Canis Major in the ſame manner as it is hete Deſcribed, the north head thereof commeth 40 minutes, after the Dogge in to the South, his declination is 32 degrees and 37 minutes, from the Line northward.



The ſouth and loweſt head there of commet 54 minutes after the great Dogge into the ſouth ; and hath his declination towards the north, 28 degrees 51 minutes.

The cleareſt in the Foot commeth a quarter of an houre before the great Dogge into the South, his declination is 16 degrees and 40 minutes towards the north.

Canis Minor, or the little Dogge, called Canicula, Proçyon.

This little Dogge Canicula hath 3 Starres, in this forme, the cleareſt of them commeth 50 minutes after the great Dogge into the South : his declination is ſix degrees 7 minutes in the north ſide of the Line.



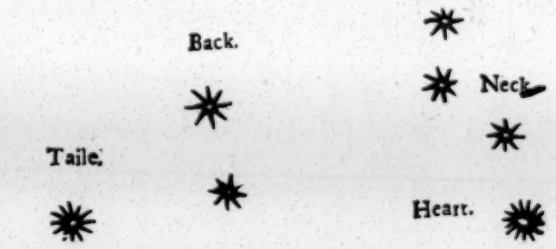
The Water-Snake, Hydra.



The Heart or the cleareſt in the Water-Snake commeth after Syrius or the great Dog two houres 40 minutes to the South, his declination is in the Southſide of the Line 7 degrees and 8 minutes, and ſheweth it ſelfe with ſuch little Starres as are here noted, where by he is eaſily knowne.

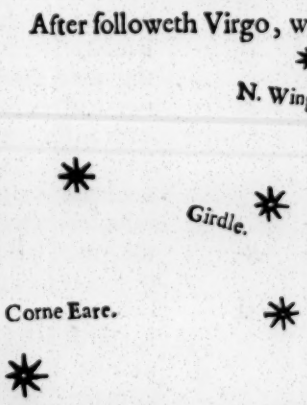
The Lyon.

The Lyon hath foure beautifull Stars, fit for uſe, & ſheweth it ſelfe with other, as is here ſet forth the firſt and foremoſt of them is called Regulus or Baſiliſcus, otherwiſe the Heart or the Lyon, which commeth 3 houres and 30 minutes, after the great Dogge in to the ſouth ; his declination is 13 degrees 40 minutes in the northſide of the Line ; the ſecond called the Necke of the Lyon 3 houres 30 minutes after the great Dogge into the ſouth, and hath his declination from the line 21 degrees 37 minutes, the Back of the Lyon comes into the ſouth, 26 minutes after the great Dog his declination is in the north-ſide of the Line 22 degrees 28 minutes the tayle of the Lyon comes 5 houres after the great Dogge into the ſouth : his declination 16 degrees 33 minutes in the north-ſide of the Line.



Virgo, or the Maide.

After followeth Virgo, whereof the principall and cleareſt ſhewes this ſhape, as they are here pourtrained the Girdle of the Virgin comes into the ſouth, ſix houres 12 minutes, after the great Dogge, her declination is 5 degrees 22 minutes, in the North-ſide of the Line.



That which is in the Wing, called Vindemiatrix, comes in to the ſouth, 6 houres 16 minutes after the great Dogge, her declination is in the north-ſide of the line 12 degrees 54 minutes.

The eare of Corne or Spica Virginis cometh 6 houres and 36 minutes after the great Dogge into the ſouth, her declination is 9 degrees 15 minutes in the ſouth-ſide of the Line.

Bootes the Waineman.

Seven houres 30 minutes after the Star called Syrius, the cleareſt Star of Bootes comes into the South and ſtandet between his thiges, in this forme, with ſome other Stars, and is called Arcturus, his declination is in the northſide of the line 21 degrees 5 minutes.



The Northern Crowne.

After Bootes followeth the north Crowne, bearingh faſhion of a Circle, as followeth, of the Mariners, it is called the Hoſpitall, and when in cleare whether, they behold ſome ſmall Stars in it, they call them the ſick; the greateſt and cleareſt of them comes 8 houres 58 minutes after the great Dogge in to the South, its declination is in the northſide of the Line 27 degrees 57 minutes.



The Waights, Libra.

The Ballance or Waights, follow the ſigne of Virgo as followeth.



The South Ballance comes 8 houres after the great Dogge to the South, its declination is in the Southſide of the Line 14 degrees 30 minutes.

The North Ballance come 8 houres 48 minutes after Syrus to the ſouth, the declination thereof is 8 degrees 58 minutes in the Southſide of the Line.

The Scorpion, Scorpio.



Then followeth the Scorpion, as this figure ſheweth, the heart of Scorpion, Antores commonly called, comes nine houres 38 minutes after Syrius into the South, his declination is 25 degrees 33 minutes in the Southſide of the Line.

The Snakebearer, and Hercules.

The Snakebearer, ſheweth himſelfe, as it appeareth in the figure, the formoſt Starre, and that which is moſt towards the north of te two, wich ſtandeth on the left hand, comes nine houre 25 minutes after the great Dogge into te ſouth his declination is two degrees 46 min. ſouth from the Line.



The head of Snakebearer comes 10 houres 48 minutes after Syrius to the ſouth, his declination 12 degrees 52 minutes in the northſide of the Line.

The head of Hercules ſtandeth by the head of Serpentarius, and comes 20 minutes before it into the South, and hath his Declination Northward fourteene degrees and 51 minutes.

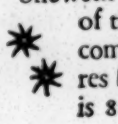
Lyra.

Then followes Lyra, in this manner, the greateſt with two little ons by it, which the Mariners call the three Caſtles, the lighteſt and cleareſt Starre, come 11 houres 55 minutes after the great Dogge into the ſouth, the Declination thereof is 38 degrees 30 minutes, on the Northſide of the Line.



The Eagle.

Sheweth him ſelf as this figure declareth, the cleareſt of theſe that is to ſay the middlemoſt of the three, comes 13 houres after te great Dogge, or 11 houres before into the ſouth the Declination thereof is 8 degrees on the Northſide of the Line.

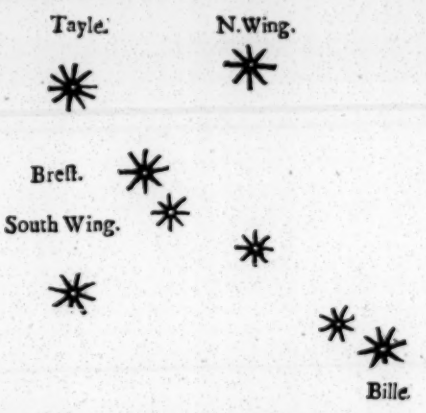


The Swanne.

The Swanne is ſhaped thus: the Starre that is the moſt North in the breſt, commeth 13 houres 40 minutes, or after 10 houres 20 minutes into the ſouth before the great Dogge, and hath his Declination in the Northſide of the Line 39 degrees 9 minutes. That which ſtands moſt to the ſouth of the two in the breſt, is a new Starre, and hath ſheweth it ſelf firſt in the yeer 1600, the Northwing comes 10 houres 4 minutes after the Dogge into the ſouth, the Northern Declination thereof is 44 degrees 15 minutes.



The South Wing comes 14 houres after the great Dogge into the South, the Declination of it is 32 degrees and 30 minutes in the Northſide of the Line. The lighteſt



and cleareſt of the Swanne, which is placed in the tayle of it comes 14 houres after the great Dogge, or 10 houres before into the South, the declination of it is 44 degrees 3 minutes in the Northſide of the Line.

Capricorno.

The moſt ſoutherly and cleareſt of the two lighteſt in the houre of Capricorne, as is here to bee ſeen, commeth 13 houres 30 minutes after the great Dogge into the ſouth; the declination is 15 degrees 50 minutes in the Northſide of the Line.

The Flying Horſe.

The Flying Horſe Pegaſus, we may ſee in the heavens in this proportion, the Starre in the mouth comes 14 houres 56 minutes after, or 9 houres 4 minutes before the great Dogge into the ſouth, his declination is 8 degrees 15 minutes.

The

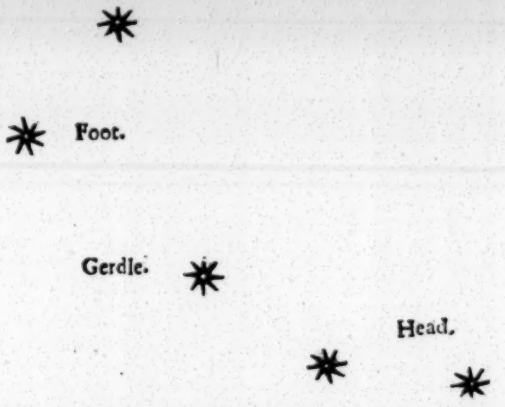


The northside of the Line. That which ſtandeth on the right hippe or right legge called the Scheat, the ſame comes 16 houres 16 minutes after the great Dogge, or ſeven houres 44 minutes before it into the ſouth, the Declination of it is 26 degrees 9 minutes in the Northſide of the Line, at the ſame time comes the firſt and foremoſt into the ſouth; placed in the Wing, which is called Marcab. The declination of it is 13 degrees 18 minutes on the Northſide of the Line.

The laſt and utmoſt in the Wing of Pegaſus, comes 16 houres 44 minutes after the great Dogge, or 7 houres 16 minutes before it into the ſouth; the declination of it is 12 degrees 3 minutes, in the Northſide of the Line.

The Head of Andromeda making with ſome Starres of Pegaſus a great quadrangle (whereby it is eaſily know) comes after the great Dogge into the ſouth 17 houres 24 minutes, or 6 houres 36 minutes before it, the declination is 27 degrees 39 minutes North from the Line.

The Image of Andromeda is placed in the Heavens in this ſort: that Starre that is in the Gridle comes before the great Dogge into the South five houres 40 minutes hath



his declination in the Northſide of the Line 33 degrees 45 minutes that which is in the moſt Southerly foot comes 4 houres 48 minutes before the great Dogge into the ſouth the declination of it 40 degrees 35 minutes in the Northſide of the Line.

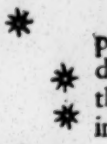
The Starre named Fomahand is placed a good ſpace in the ſouthſide of the Flying horſe, in the uttermoſt part of the flood running from Aquarius, it is a great and cleare Starre, and comes 16 houres 16 minutes after Syrius or 7 houres 44 minutes before it into the South, the declination there of is 31 degrees 26 minutes in the Southſide of the Line.

Cetus, or the Whalfiſh.

After the followes the Whalfiſh, it hath two notable Starres in the tayle of it, the more Northerly comes before the great Dogge into the ſouth 6 houres 28 minutes, the declination of it is 10 degrees 47 minutes in the ſouthſide of the Line, 24 minutes after comes the ſouthermoſt into te ſouth, and it is in the ſouthſide of the Line, 19 degrees 58 minutes.



The cleareſt in the mouth named Menkar, ſheweth it ſelfe with two other ſtarres in this order, the declination is in the Northſide of the Line 2 degrees 37 minutes.



In the head of Aries there is a cleare ſtarre appearing with that in the Horne, in form as is here deſcribed, and comes 4 houres 43 minutes into the South, before the great Dogge, ſtandeth in the North-ſide of the Line 21 degrees 44 minutes.

Somewhat more Northerly followeth the head of Meduſa at it is here dechiphered, the cleareſt of theſe comes before the great Dogge in to the ſouth 3 houres 46 minutes and is placed in the northſide of the Line 39 graden 42 minutes.



Directly north followes Perſeus a bright Starre in forme thus, & it comes before Syrius into the South, 3 houres and a halfe, hath the declination in the Northſide of the Line 48 degrees 31 minutes.



Then followes the image of the Bull in whoſe head there are ſome Starres in the forme of a bee hive laying a ſide the greateſt, brighteſt, and moſt eaſterly ſtarre, called the eye of the Bull, Aldebaran, or Oculus Tauri, comes two houres 14 minutes before the great Dogge into the ſouth, his declination in the Northſide of the Line 15 degrees 48 minutes.



The Coachman, Ericthonius.

The figure of Auriga, or the Coachman, ſhewes himſelfe a little after the Bull in the ſouth, in ſuch ſort as is here deciphered, the greateſt & brighteſt of them called the goat, hircus, or capella, come one houre 40 minutes, before the great Dogge into the ſouth; the declination of it is 45 degrees 34 minutes in the northſide of te Line.



The right ſhoulder goeth 57 minutes before the great Dogge toward the ſouth: his declination is in the northward 44 degrees 51 minutes.

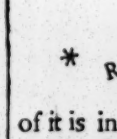
Alſoo that called the North-Horne of Taurus, goes one houre 22 minutes; before the great Dogge into the ſouth, his declination is 28 degrees 15 minutes northward.

The Gyant.

Abouts the ſame time comes the Gyant Orion, being of this figure, it is eaſe to be known, the left Shoulder commeth before Syrius into the ſouth one houre 24 minutes, the declination of it is 5 degrees 59 minutes.



The right ſhoulder commeth 58 minutes before the great Dogge, & hath 7 degrees 17 minutes, of northerly declination. The great and bright Starre in te left Foot called Regel, goeth one houre 32 minutes before the great Dogge into the ſouth, the declination of it is in the ſouth-ſide of the Line 8 degrees 40 minutes.



The firſt of the three in the Girdle, which are called the three Kings, goe one houre 16 minutes before Syrius into the ſouth; the declination of it is 36 minutes in the ſouthſide of the Line.

Foure minutes after commeth the ſecond or middlemoſt into the ſouth, the declination is one degree 27 minutes.

Nine minutes after the firſt commeth the laſt or third of the three Kings into the ſouth; and hath is declination in the ſouthſide of the Line 2 degrees 10 minutes.

Theſe three Kinges ſtand allwayes and appeare a little above the great Dogge, whereby they are eaſily knowne.

Here doe follow some Starres which shew themselves in the North, and therefore by some men may are called North Starres.

THe Starres of the great Coach or Wagon, very servicable and fit for those that sayle farre towards the south; they come in the time here following specified unto their highest, the hinder wheeles come into the



north to their higest after Syrius of the great Dogge 4 hor. 12 min. the most Northern hath his declination from the Equinoctiall 63 deg. 41 min. and is distant from the Pole 26 degrees 19 minutes; the declination of Southermost is 58 degrees 18 minutes, it is distant from the Pole 31 degr. 42 min.

The Southermost of the forewheeles comes into the north to his higest right over the Pole 5 houres 5 minutes after the great Dogge is past the south; his declination 55 degrees 42 minutes in the northside of the Line, and is distant from the Pole 34 degrees 18 minutes.

The most Northern in the forewheele followeth 23 minutes after, and then commeth to his highest; the declinatin of it is 59 degrees 1 minute, and it standeth above the Pole 30 degrees 59 minutes.

The Horse the next to coach commeth to its highest in the North, six houres 8 minutes, after the great Dogge is gone through the South; it declineth to the north 57 degrees 57 minutes, is distant from the Pole 32 degrees 3 minutes.

The middlemost Horse comes halfe an houre after it to the highest; the declination of it is 56 degrees 50 minutes, therefore it standeth distant from the Pole 33 degrees 10 minutes.

The outermost Horse of the coach commeth to the highest 7 houres 4 minutes after Syrius is past throug the south the declination of it is 51 degrees 9 minutes, it is distant from the Pole 21 degrees 51 minutes.

The middlemost and brighteſt of the wayters decline to the north 75 degrees 34 minutes, is distant from the Pole 14 degrees 17 minutes.

NOTA.

TOuchingh the north Starre her declination, & how it is to be used, with, the watchmen is decliniated in the discourse followingh.

The Dragons head is formed at this figure declareth, the Star most southerly is the cleareſt, & commeth to the highest in the north 11 houres and 5 minutes after that Syrius is past the South, the declination 51 degrees 37 minutes in the north side of the Line; standeth from the Pole 38 degrees 23 minutes.

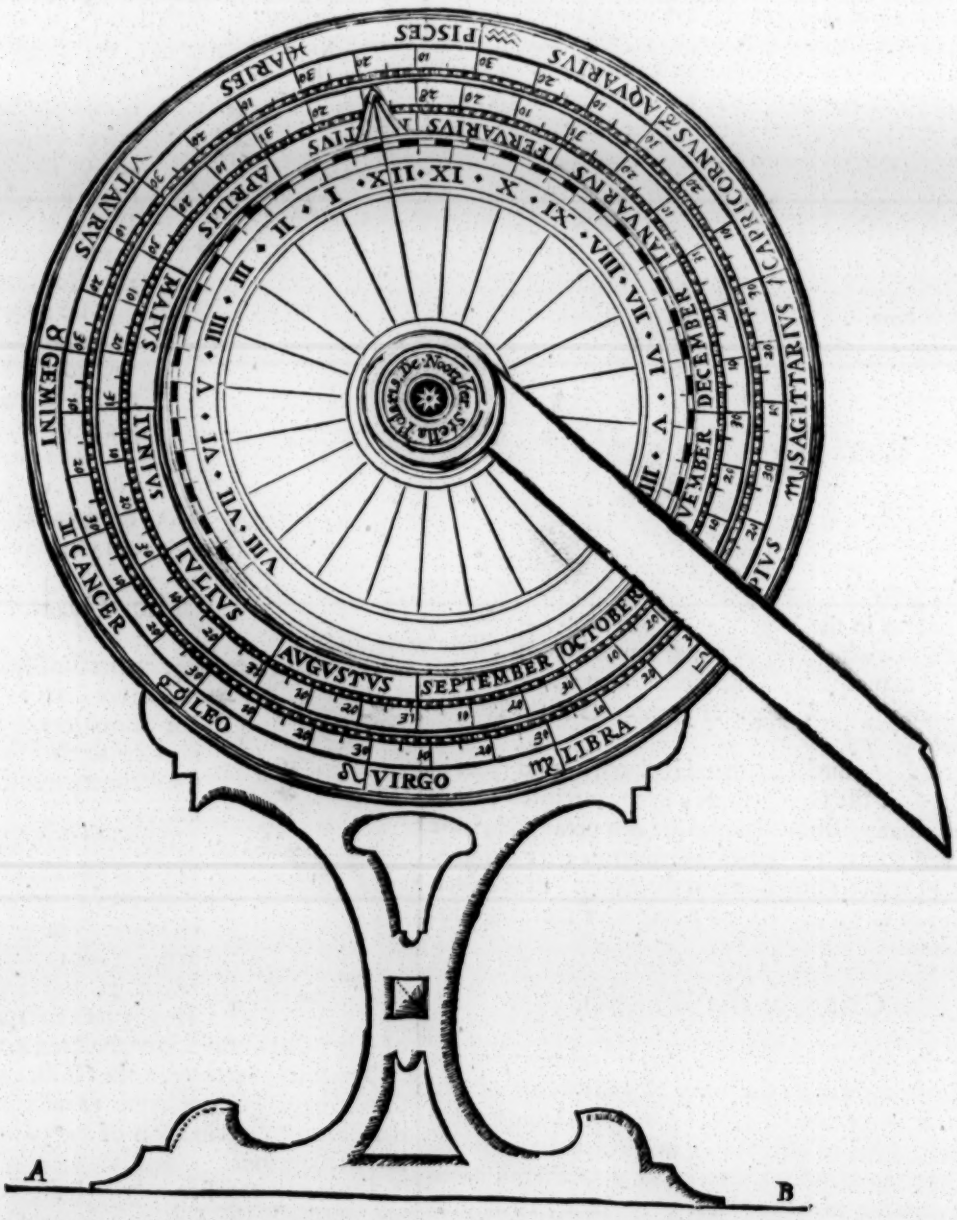
The Image of Cassiopea shewet it self beneath the Pole in this proportion, the first Star standing in the Chaire, commeth into the north to the higeſt 6 houres 36 minutes before the great Dogge, the declination of it is 57 degrees 12 minutes to the north, and therefore 38 degrees 48 minutes.

Half an houre after followeth the Breſt named Scheidth, the declination is 54 degrees 36 min. & thus it standet from the pole 75 degrees 24 minutes.

Fifteen houres after that followet the star that standeth in the Hipp, in declined 58 degr. 48 min. so that standeth from the Pole 31 degrees 12 min.

Yet 37 minutes later followeth that which is placed in the knee, hath its declination 58 degr. 21 min. it is distant from the Pole 31 degr. 39 min.

The 17. Point. How to find the Houre of the Day or of the Nigt.



TO finde the houre of the day at any hight, will bee done most readily & certainely with such a water compas, as is described in the Chapter of the ebbing and flowingh of the Sea, in the nigt one may finde it by the nigtdiall, as this Figure above describeth, which hath 2 rondels; the one moveable, the other immoveable, in the lowest which is immoveable are the 12 signes of heaven placed is also the moneths & daies of the yeare. On the moveable roundell are the houres, this turnes with the gnomen, whose rigt side answereth to the middle point where there must be a navle with a hole, throug which a man may see. The use of this nigt dial is this, we set first the foot to te 12 houre on the moveable roundel, & to te day of te veare, on te undermost unmoveable roundel, & set te Instruments, wit te lowest corner of the foot A B, so that it stand waterpas, in such sort, that a man may see the North-

North-ſtar through the hole of the nayle, turning the diall up and downe, ſo long till the hinder Wheeles of the great Wagen come into the dialt, which beingh ſo, the gnomen ſhall ſhew the houre on the moveable roundel. And if in place of the hinder Wheels of the Wagon you take the brighteſt of the Watchmen, it will be 4 houres 15 minutes later, as the dial will ſhew, becauſe the Wheeles aforeſayd of the great Cart goe ſo much before the Wayters.

Men may finde the houre by the aſcenſion of the Sunne and the Starres in this manner: When we ſee any Star in the ſouth, whoſe juſt aſcenſion is knowne, and that we know the true aſcenſion that day, then draw the aſcenſion of the Sunne from the aſcenſion of the Star, the remainder we devide into houres by 15, (for 15 degrees make one houre) and this wil be the right houre of the time, but if the aſcenſion of the Sunne be more then the Stars, in that cauſe you ſhall add. 360 degrees to the aſcenſion of the Star, and then to as aforeſayd.

1. Example.

On the 10. of April, in the evening, in the ſouth, I ſe the Heart of the Lyon, whoſe rigt aſcenſion in 147 degrees the aſcenſion of the Sunne on that day is 19 degrees, take thoſe from the aſcenſion of the Star, there remaines 128 degrees, and theſe devided by 15, I finde 8 houres 8 degrees over plus, and for as much as 15 degrees make one houre, every degree will make 4 minutes, the 8 degrees over plus, make 32 minutes of an houre it will be then at that time 8 houres 32 minutes from the noone tyde.

II. Example.

On the 5 November in the nigt I finde in the ſouth the Star Aldebaran, the ſouth Eye of the Bull, whoſe right aſcenſion is 64 degrees: the Sunnes right aſcenſion on that day 220 degrees, which is more then that of Aldebaran, therefore I add. to the aſcenſion of the Star 360 degrees, it makes 424 degrees, the Sunnes rigt aſcenſion being taken from this, there remains 204 degrees, which is the difference betweene the aſcenſion of the Sunne and the Star aforeſayd, which being devided by 15, you ſhall finde 13 houres 8 degrees, which make 36 minutes, it is then 13 houres 36 minutes from the noone tyde, that is one houre 36 minutes after midnight.

How to finde the aſcenſion on any day in the Yeare of the Sunne and the Stars, we have here adjoyneth 2 Tables, the one of the Sunne, ſhewing from 5 dayes to 5 dayes, the Sunnes aſcenſion, out of which you may eaſily finde the ſame in other dayes. The other for thirtie of the primeſt fixed Starres, both of them onely by degrees, that beingh ſufficient for this buſineſſe.

The 18 Point. A Table of the right aſcenſum of the Sunne.

The first number in the Table ſhewed the Day of the Moneth, the ſecond of Degrees of the Aſcenſion, of the Sunne on that Day.

Janu.		Febr.		March.		April.		May.		Juny.	
da.	deg.	da.	deg.	da.	deg.	da.	deg.	da.	deg.	da.	deg.
5	247	5	319	5	346	5	14	5	42	5	73
10	292	10	324	10	351	10	19	10	47	10	78
15	297	15	329	15	355	15	24	15	52	15	83
20	303	20	334	20	360	20	28	20	57	20	88
25	308	25	339	25	4	25	33	25	62	25	94
31	315	28	442	31	10	30	38	31	68	31	99

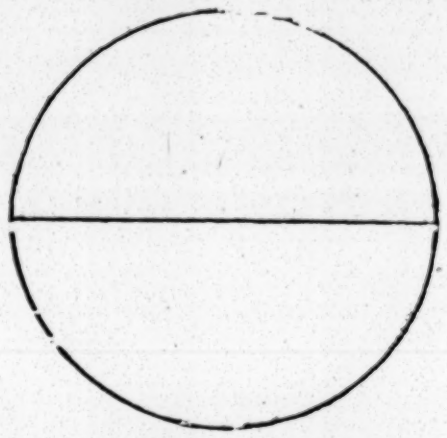
Julius.		Auguſt		Septe.		Octob.		Nove.		Decem	
da.	deg.	da.	deg.	da.	deg.	da.	deg.	da.	deg.	da.	deg.
5	104	5	135	5	164	5	191	5	220	5	251
10	109	10	140	10	168	10	195	10	225	10	257
15	114	15	145	15	173	15	200	15	231	15	263
20	119	20	149	20	177	20	205	20	236	20	268
25	124	25	154	25	182	25	210	25	241	25	274
31	130	31	159	30	187	31	215	30	246	31	281

A Table of the right aſcenſion of the primeſt Starres.

THE Girdle of Andromeda.	12 degrees
The Cleareſt in the Head of the Ram.	27 degrees
Menkar the Brigteſt in the Mouth of the Whale.	41 degrees
Aldebaran, the ſouth Eye of the Bull.	64 degrees
Capella in the left Shoulder of Erichtonius.	72 degrees
Regel the left Foot of Orion.	74 degrees
The Star in the left Shoulder of Orion.	84 degrees
Syrius the great Dogge.	97 degrees
The Nort-head of Gemini.	180 degrees
The Sout-head of Gemini.	111 degrees
Procyon the little Dogge.	110 degrees
The Brigteſt in the water-Snake, Cor Hydræ.	137 degrees
Regulus the Heart of the Lyon.	147 degrees
The Tayle of the Lyon.	172 degrees
Vendemiatrix the right Wing of Virgo.	191 degrees
Spica Virginis the Eare of Corne.	196 degrees
Arcturus the Brighteſt in Bootes.	210 degrees
Arcturus the Brighteſt in Bootes.	218 degrees
The Sout-Waight.	210 degrees
The North-Waight.	224 degrees
The Brighteſt in the North-Crowne.	230 degrees
Antares, the Hart of the Scorpion.	242 degrees
The Head of Hercules.	254 degrees
The Head of Serpentarius.	259 degrees
The Tayle of the Eagle.	282 degrees
Vultur the Cleareſt in the Eagle.	293 degrees
The Star in the Mouth of the Horſe Pegaſus.	321 degrees
Fomahant the Brighteſt in the end of Aquarius.	339 degrees
Marcab the Sack or Foot of Pegaſus.	342 degrees
The uttermoſt in the Wingh of Pegaſus.	358 degrees
The moſt Northerly in the Whales tayle.	360 degrees

The 19. Point. Of the Horizon, or the Circle that boundeth the ſight.

WHere the Heavens and the Earth or the Waters ſeeme in our ſight to meete together, that is called the Horizon, or the Circle bounding the ſight, becauſe our ſight endeth there, & can go no further by our Netherland Seafarers, it is alſo called the Kimmen. This Circle divideth the Heavens juſt in two even parts, ſo that juſt the one halfe is ſeene by us here above, & the other halfe can not beſeene by us, becauſe it is hidden underneath us, which happeneth



in this manner. The Earth, (as in the firſt Chapter is ſhewet) ſtandeth as a Center in the middle of the heavens, the which by reaſon of the unmeaſurable quantitie or largenes there of, is ſo farre ſeparated from the Earth, that the whole Thickniſſe of the Earth in reſpect of the Heavens, it no more then a point or prick, or at leaſt ſo little that it cannot be perceived by our ſight and that which by our ſight, alongh upon the Earth or the Water we can comprehend, (which can not reach further then about three Dutch miles, that is 10 Engliſh miles) ſeemeth in our Eyes be reaſon of the ſpace ſo little, to be no other then an halfe Globe-fallingh perpendicular upon a plaine, ſo that our ſight falleth in the Heaven, af if we ſtood in the middle point of the World, and ſaw-right compaſſe wiſe, whereby it falleth out, that juſt the halfe of the Heaven is ſeene by us, and the other halfe is not ſeene by us, in like manner as if a man ſhould lay a line over the Center of a Circle, then the one halfe of the Circle is a bove, and the other halfe is juſt under. All the heavenly light, as the Sunne, Moone and Starre (by the turning of the Heavens) comming above the Horizon, are ſeene by us, and going downe under it, goe out of our ſight.

The Zenith is the point of the heavens directly over our head, and is on all ſides equally diſtant from the Horizon.

An Explication.

The Horizon is to be conſidered in a two-fold manner: according to the true and the viſible, the true goet every way rigt waterpaſſe from our ſight, that is palleth throug the Center of the Sphere, as is ſayd, deviding it into equall parts, is every way from the Zenith 90 degrees the juſt fourth parts of a Circle.

The Viſible is the uttermoſt part of the Earth or Water, that our Eye can reach or ſee, when our Eye is juſt on the flatt or ſurface of the even Water, then the true and Viſible Horizon are one and the ſame, but our Eye lifted up above the ſurface of the water, the ſigt falleth (over the Globe of the Earth) every where lower then water-paſſe, & thence it followeth that the viſible Horizon is lover than the true, although this be not much materiall in the Art of Navigation, for as much as it is recompenced by the refraction of the viſible Horizon. We have added this Table, for thoſe that deſire to be exact, where men may ſee how much the viſible differs from the true, that being changed or altered by Feet.

The Eye eingh elevated above the Water. Foote.	The viſible Horizon is lower then the trues. minutes.
2	1
4	2
8	3
14	4
20	5
27	6
37	7
39	8
53	9
66	10
82	11
100	12
140	13
163	13
186	16

Example.

THE ſight being elevated above the ſurface of the waters 14 feet, in the 1 Columne, in the 2 Columne over againſt it, you find 4 mi. which te viſible Horizon is lower then the true. The ſight being lifted 140 feet about the Horizon, the viſible will bee 13 minutes lower then the true.

The 20. Point. Of the Meridian or Middle Circle.

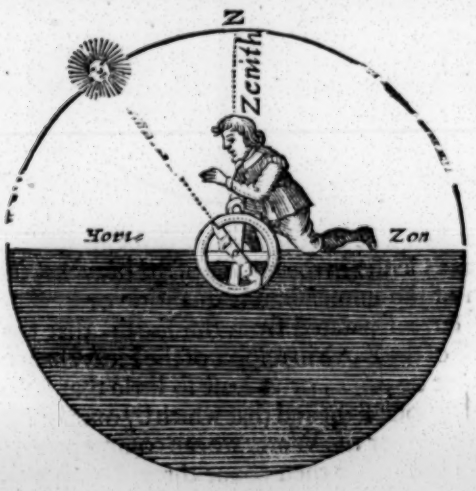
THE Meridian is a Circle in the Heavens, wich we muſt conceive to paſſe through both the Poles of the World, right over our heads, and croſſe wiſe through the Equinoctiall, and to cut right through the Horizon north and ſouth. The Sun touchingh this Circle is at the higheſt, and then it is juſt noone, or the middle time of the day,

day, and likewiſe the ſtars when they come upon this Circle, they are like the Sun, at the higheſt of the Horizon, and right ſouth & as ſoone as they have paſt it they begin to goe downe ward againe.

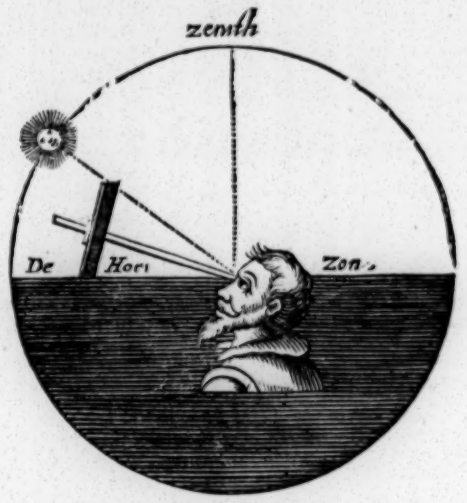
The 21 Poynt Of the height of the Sunne or Starres, and what it is.

THe height of the Sunne or Starres is nothing elſe but the diſtance or ſpace that is between the Horizon and the Sun or Starre it ſelfe: which to underſtand prefectly, you muſt make, that we ſuppoſe a point or prick to be right above our heads in the Heavens, that is equally diſtant from the Horizon all places, which poynt is called the Zenith, or the head poynt: now ſeeing that the wole cercuit of the heavens containeth 360 degrees and that the juſt halfe thereof is ſeen above the Horizon, it is certaine that this poynt called the Zenith in all places is above the Horizon 90 degrees whether you turn eaſt, weſt north or ſouth or any other way: now when the Sun riſeth above the Horizon and aſcendeth higher from it, and commeth toward this poynt or Zenith: we ſay that as many degrees as it aſcendeth, from the Horizon towards the aforeſaid point or Zenith, that the ſame is the height thereof, as by example, when he is riſen halfe up from the Horizon towards the Zenith, then he is 45 degrees ane if he be riſen a third part from the Horizon then he is 30 degr. high, and ſo forth, the like is alſo to be underſtood of the height of the Stars.

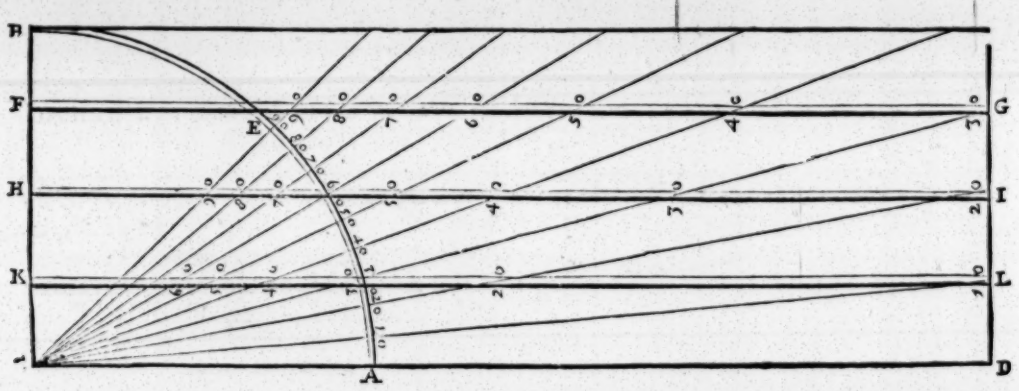
The 22 Poynt. How to meaſure or find the height of the Sun or of the Starres.



TO find the height the Mathematicians have deviſed divers fit Inſtruments, where of there are two that are moſt uſed ad ſea, which are the Aſtrolabium, and the common Croſſe ſtaffe, the uſe of the Aſtrolabium is plaine and well known unto all men: for holding the inſtrument by the ring, let the Sun ſhine through the holes of the eares, the uttermoſt part of the Diall, counting from belôw upwards ſheweth how many degrees the Sun is riſen above the Horizon: as the former figure plainly ſheweth.



The Croſſe-ſtaffe is uſed thus, you muſt place the end of the Staffe underneath the eye, then you muſt remove the Croſſe too and fro, untill the upper end of the Croſſe ſtanneth even upon halfe the Sun or Star, and the under end juſt with the Horizon, and then the Croſſe will ſhew you upon the ſtaffe, how many degrees they are in height, ſo you account after thoſe numbers whereof ninety ſtand that the end of the ſtaffe that is next to your eye, the computation going backward from the other end of the ſtaffe: for otherwiſe if you reckon by thoſe numbers that proced forward from the end next your eye, then it wil ſhew you houw many degrees the Sun or Star ſtandeth from the Zenith, or Head poynt of the Horizon, as you may ſee by the figure enſuining.



The 23 Poynt. How you muſt make a perfect Croſſe ſtaffe, and how you ſhall marke it.

THe Croſſe ſtaves are oftentimus made the one after the other by imitation, or patterns, & that many times without judgement or knowledge whether the pattern bee good or not, whereof not with ſtanding a man ought to be very certaine, for it is a matter of great importance and therfore. I have here ſet downe two ſeverall waves eaſie to be underſtood, how to make the ſame exquiſitely and perfectly upon good reaſon & good ground.

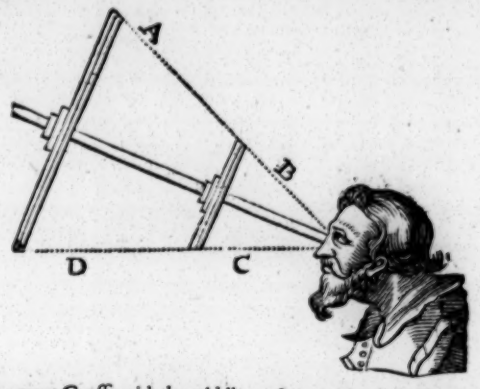
Make an even ſmooth board, and paſte good paper upon it, then draw a ſtrait line upon one edge or ſide thereof, as you ſee in thit figure a line marked C A D, then marke another line as you ſee it marked B C, that B C A bee a right and juſt halfe ſquare, then take a good paire of Compaſſes, and ſet one foot thereof in the angle marked C, and compas therewith as you ſee B E A, ſo that A E B may bee a right quadrant, or fourth part of a Circle, then devide it into two parts, to E, and then devide the other halfe (which is A E) into 90 parts, or degrees as thus: firſt devide it into 3 parts, and then divide each 3 parts again into 3, and then it wil be divided into 9 parts, which done, devide each of them into two parts, and thoſe diviſions or parts divide in to the 5 parts, and then it will bee divided into 90 parts: then take a ſtraight line: and lay the one end thereof upon the Center C, and ſo forth upen every ſeverall poynt, which you have devided in the Quadrant and then draw lines from the Center C through all the foreſayd poynts, as long as the broad will containe the, as you may ſee in this figure: which done then your inſtrument is fully made and prepared to marke your ſtaves there upon. Which to doe, with your compaſſes take juſt the half length of your Croſſe, and ſet the one foot thereof in the Center, and put the other at F, and doe the like from D right to G, which two poynts or pricks draw with a ſtraight line unto each other as you ſee in the line F, and G, and then mark where the line F G is cut through by the lines that come out of the Center through the degrees or poynts of the quadrant: for thoſe cuttings through, ſhew upon the ſayd line the right markingh of your Croſſe-ſtaffe: that is, you muſt marke your Staffe juſt as you ſee that theſe lines in F G are marked, by the lines that come out of the Center and paſſe through it, whether the Croſſe bee long or ſhort, you muſt follow the ſame order that you are taught in the figure, the line H I is drawne for a ſhorter Croſſe then the former, and K L for one that is ſhorter

ſhorter then that, viz whoſe halfe is juſt ſo long as the Line C K. The ſecond manner of Framing your Croſſe-ſtaffe much excelleth the firſt in perfection and curioſity, ſo you divide it perfectly with your Compaſſes, which is done in this manner. Upon an hard even board which is paſted with paper draw a ſtraight Line as long as your ſtaffe is, and with point compaſſe take the juſt halfe or the length of your Croſſe, whereunto you mean to mark your ſtaffe, and prick it many times along in the ſaid Line as you can: and divided each of the ſaid lengths into 11000 equal parts, then look upon the Table here after inſuing, which ſhewed you how many of thoſe points or parts you ſhall marke for each degree, & that you muſt doe in manner following, from the end of the ſtaffe, which you will make the eye end pricke juſt the halfe length of the Croſſe, and there make a Croſſe ſtroke, from whence prick for every degree ſoo many of the aforeſaid parts as the Table enſuing ſheweth you. As for example, for the firſt degree prick 176 parts, for the ſecond 355 parts, for the third 538 parts, for the fourth 724 parts, and ſo forth: Remembring that you muſt prick all the lengths of pricks or parts aforeſaid, from the aforeſaid Croſſe ſtroke, which is marked upon the halfe length of the Croſſe into 11000 parts, then devide the whole Croſſe ſo, & then take for every degree halfe ſo many as the Table ſheweth unto you. And if you cannot doe ſo, devide halfe the Croſſe into a 1000 parts, and then leave the hindermoſt letter of the Table out, as where you ſhould for the firſt degree take an 176 parts, take but 17 parts, leaving the left figure out: but if your Croſſes bee ſoo ſmall that you can devide the halfe of them into no ſmaller then an hundred parts, then leave out the two laſt figures in the Table. But you muſt underſtand that the more parts that you devide the Croſſes into, your markes will fall out ſo much the better and perfecter.

de	part.	de	part.	de	parts.	de	parts.	de	parts.
1	176	19	4019	37	10357	55	21716	73	56612
2	355	20	4281	38	10503	56	22708	74	61154
3	538	21	4550	39	10765	57	23739	75	69958
4	724	22	4826	40	11445	58	24874	76	71445
5	913	23	5108	41	11943	59	26059	77	77769
6	1106	24	5399	42	12460	60	27321	78	85144
7	1303	25	5697	43	12998	61	28667	79	93854
8	1504	26	6003	44	13558	62	30108	80	104301
9	1708	27	6318	45	14142	63	31663	81	117062
10	1918	28	6643	46	14751	64	33315	82	133707
11	2131	29	6976	47	15386	65	35107	83	153369
12	2349	30	7320	48	16051	66	37046	84	180311
13	2572	31	7675	49	16746	67	39152	85	219038
14	2799	32	8040	50	17475	68	41445	86	276363
15	3032	33	8418	51	18239	69	43953	87	371885
16	3270	34	8807	52	19042	70	46713	88	561810
17	3514	35	9210	53	19887	71	49758	89	1131891
18	3764	36	9626	54	20777	72	53137	90	infinit.

The 24 Point. Of the cutting of the Croſſe-ſtaffe, and how a man may helpe and prevent all the defects of the ſtaffe.

THere being a Croſſe-ſtaffe well and exquiſitely framed, according to the doctrine of the former Chapter: it falleth out, that certaine ignorant perſons cut of a peece from the eye end of the Staffe, about a degree or a degree and a halfe, or two degrees long, and can give no other reaſon of that their doing but that it muſt be ſo, and that they have experience that it ought ſo to be. But queſtionleſſe, ſeeing they prove by their experience that they doe not find their meaſuring with uncutt ſtaves perfect and rigt as it ſhould bee, the fault thereof, is not in the Croſſe ſtaves uncut, but in themſelves, for they know not how to uſe the ſtaffe a rigt, or underſtand and the true ground thereof. Others that will ſeene wiſer then the former, give a reaſon thereof: to wit, that the ſtaffe muſt be cut, becauſe of the hollowneſſe of the eye, for that otherwiſe the ſtaffe cannot come to ſtand, ſo that the end thereof be conjoyned to the middle point or center of the eye or ſigt, this reaſon hath ſome ſhow of truth, but notwithſtanding is a like untrue and erroneous: for the ſtaffe may very well bee ſet, either on the innermoſt or outermoſt corner of the eye, ſo that the ſigt off the eye may fall to anſwer juſt to the end of the ſtaffe: that this is truth we will prove with good reaſon as followeth.



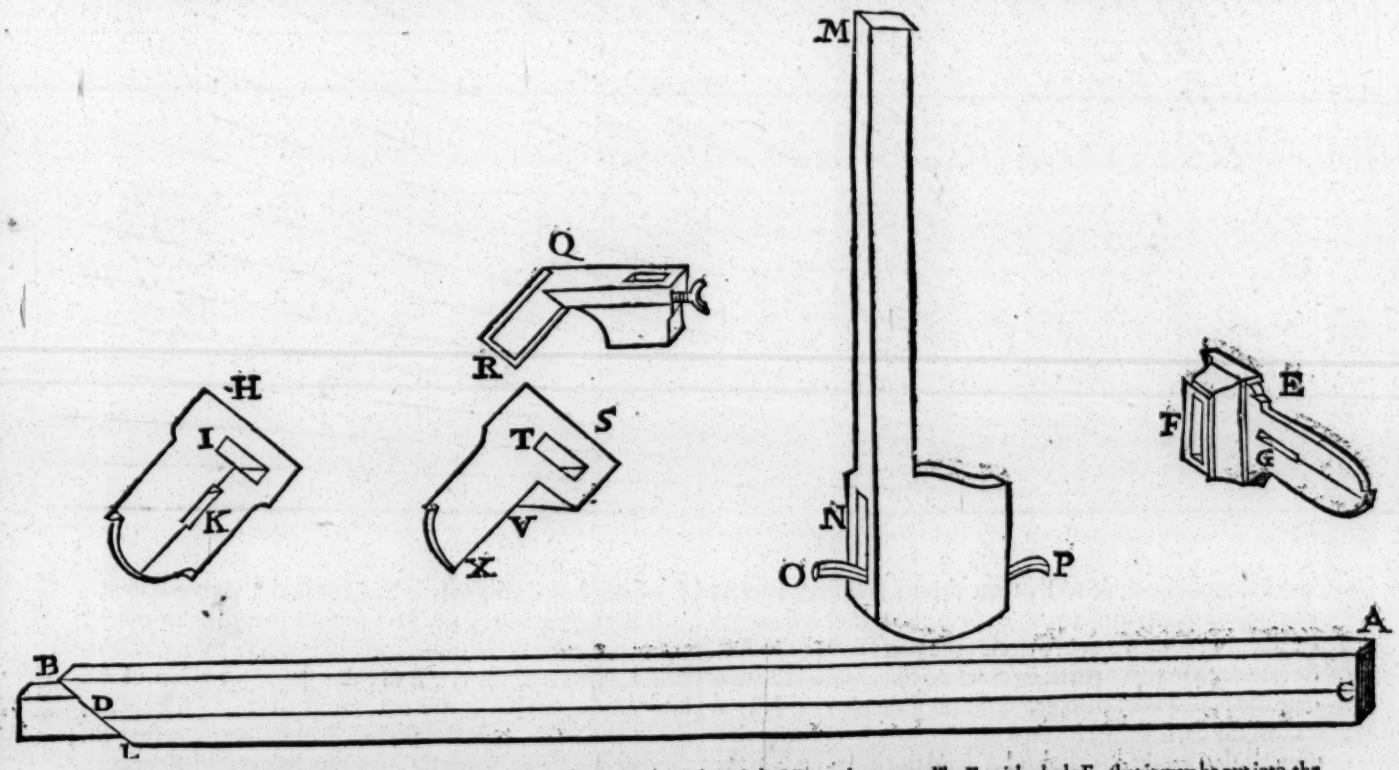
Set the great Croſſe with the middle moſt upon like degrees, to wit, each upon ſich as for that purpoſe are marked upon the ſtaffe: then apply the ſtaffe (the Croſſes ſoo firmely remaining) unto your eye in ſuch manner (whether it bee on the innermoſt or outermoſt corner it is all one) as that you diſcerne the ends of the Croſſes both above and beneath, juſt over each other, in forme as this figure ſpecifieth. If then you draw ſtrait lines by the ends of the Croſſes A B, and D C, they ſhall meet juſt in the middle point of your ſigt. And in aſmuch as the Croſſes are placed upon like degrees, the Lines aforeſaid ſhal meet juſt upon the end of the ſtaffe, ſeeing that end of the ſtaffe repreſentet the center of the quadrant whereby your ſtaffe is marked.

So then the aforeſaid Lines or ends of the Croſſes anſwer both juſt upon the end of the ſtaffe, and alſo upon the ſigt, ſo that it followeth neceſſarily, and appeareth evidently: that the end of the ſtaffe and the ſigt meet in one; or to ſpeake properly, both of them ſtand juſt in the center of the quadrant.

Therefore whenſoever with the Croſſe ſtaffe you will take the heigt of the Sun, or of any Star, then obſerve diligently: How many degrees it is elevated above the Horizon, and place the two Croſſes upon ſo many degrees, then apply the ſtaffe to your eye in ſuch manner as that you may ſee the ends of the Croſſes juſt over each other, according as is taught before, in ſuch forme then as you finde the ſtaffe to ſtand your eye ſhall you place the ſtaffe (taking away one of the Croſſes) when you deſire to meaſure according to ſuch heigt; this is a ſure rule which will never faile, neither can you poſſible miſſe if you follow it.

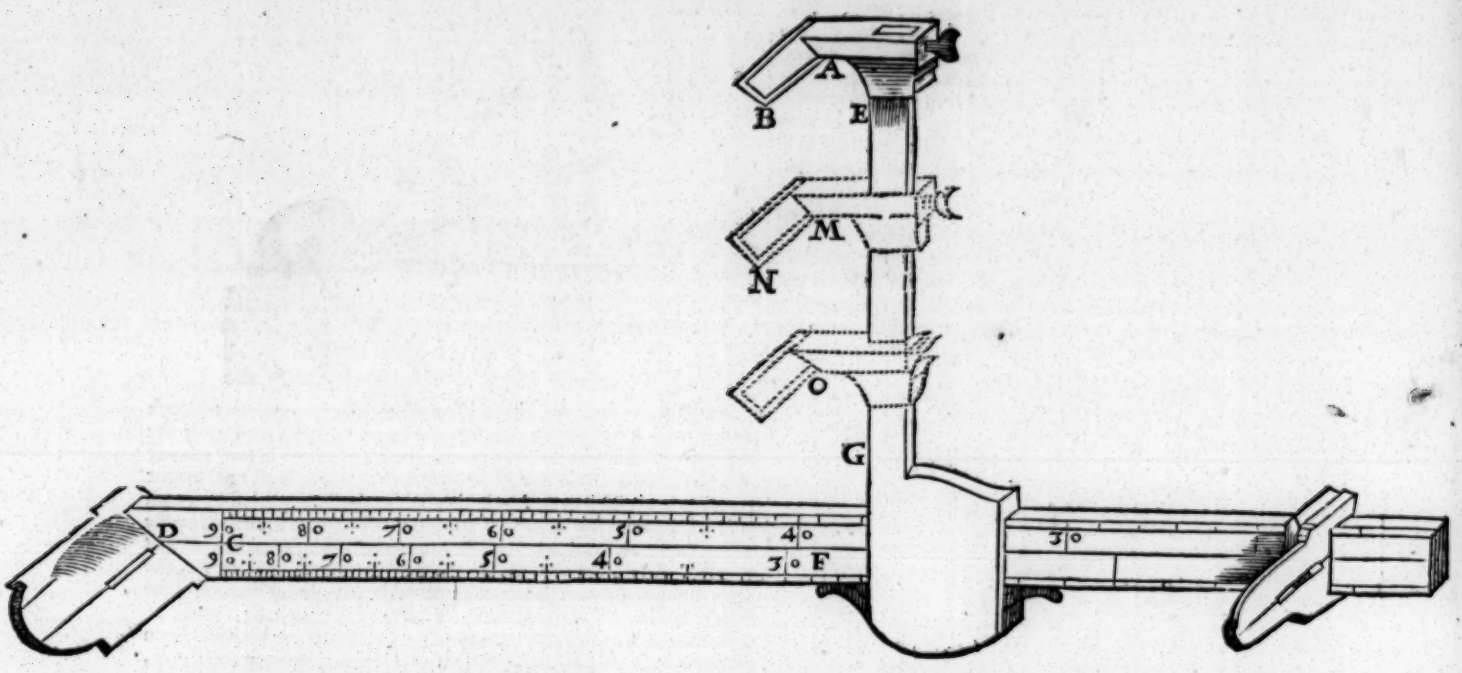
The 25 Point. How to finde the height of the Sun by the ſhadow.

THE common Croſſe-ſtaffe is a very fit Inſtrument to take the height at Sea, as well of the Sunne, as of other Stars, but if the Sunne bee very hig, wee can not uſe it ſo commodiouſly, becauſe the eye can hardly indure the heath and brigtneſſe of it. To avoid this, wee may very conveniently

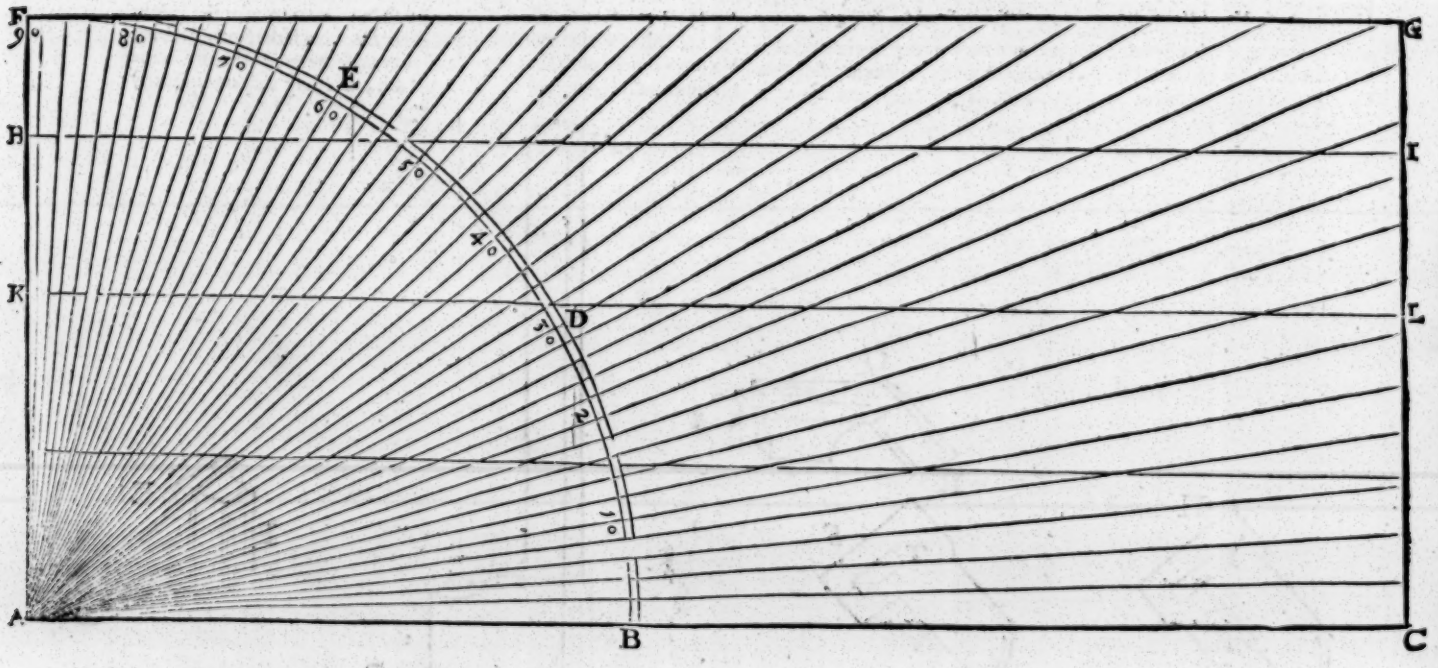


take the heigt of the Sun by the ſhaddow, in this manner, make a peece or ſtaffe 3 or 4 feet long, very ſmooth, halfe a thumme thicke, broad 2 or 3 thummes, that it may remaine ſtraight, as you ſee in A B in the midſt of the broad ſide (juſt at the halfe betweene the upper and nether edge Line; draw aright) C D, make a peece like E, with a hole F, that it may be put into the peece A B, and thruſt it to and fro, alſo thwart over let there bee a ſmall hole for the eye like G, in ſuch for that when this ſliding peece is fitted to the other, the hole for the eye, may come to ſtand juſt by the middeſt of the

the Line of the peece C D, neither nor lower. Make another peece like H, and in the middeſt of the ſame alſo a hole for the eye like K, and an hole thwart like I, that ſo it may be put on the end of the ſtaffe at B, in ſuch manner that it ſtand not rigt, but thwart or cornerwiſe, as the line B D L ſheweth, and that the hole K, may ſtand like the other eye hole G, on the peece E, either higher nor lower then the Line C D, juſt by the point D, or elſe you may in place of that eye hole, cut of the Croſſe of the lower edge to the Line where the eye-hole ſtandeth, (as you may ſee in the Croſſe S) at the Line X V. make another Croſſe, a foot and a halfe or two foot long, in the forme of M N, with a hole at N, throug which it being put into the foreſaid peece, that ſo you may ſlide it, to and againe, and that it may goe ſoftly and certaine on it, then make in the lower part of the hole a braſen ſcrue which may be thruſt under againſt the peece and ſhuft it cloſe to O P, laſt of all, make a ſmall Croſſe as Q, with an hole that it may be ſee on the long Croſſe M N, and faſten it behinde with a ſcrue ſo high or low as uſe requireth, in the end toward the fore part make a flat eare, an inch, or an inch and



a halfe broad like R S, neither rigt nor flat but thwartwiſe or cornerwiſe, ſo that when all theſe parts are joyned together as they ougt, the flat of that eare, and that thwart flat of the ſliding-peece H, may alway remaine at like diſtance, that is, that they make equal angles, or that they both may ſtand the one and the other out of the ſquare againſt the peece A B, the parts thus prepared, and joyned to each other, the former of this Inſtrument will be like the ſecond figure, now to marke this ſtaffe fit for uſe doe thus; make an even board about the breadth of the length of the long Croſſe, and as long as the peece A B, paſt on good paper, in the one corner draw a ſtraight Line like this figure the Line A B C, take a paire of compaſſe and ſet the one foot in the point A, and with the other make part of a circle, as wide as the board will permit, like B D E F; keepe the compaſſe open, and ſet one foot in B, and the other in the circle drawne, as farre as it will reach, as in E, devide the circle B E into equall parts in D, truſt the white B D, or D E, from E, for-



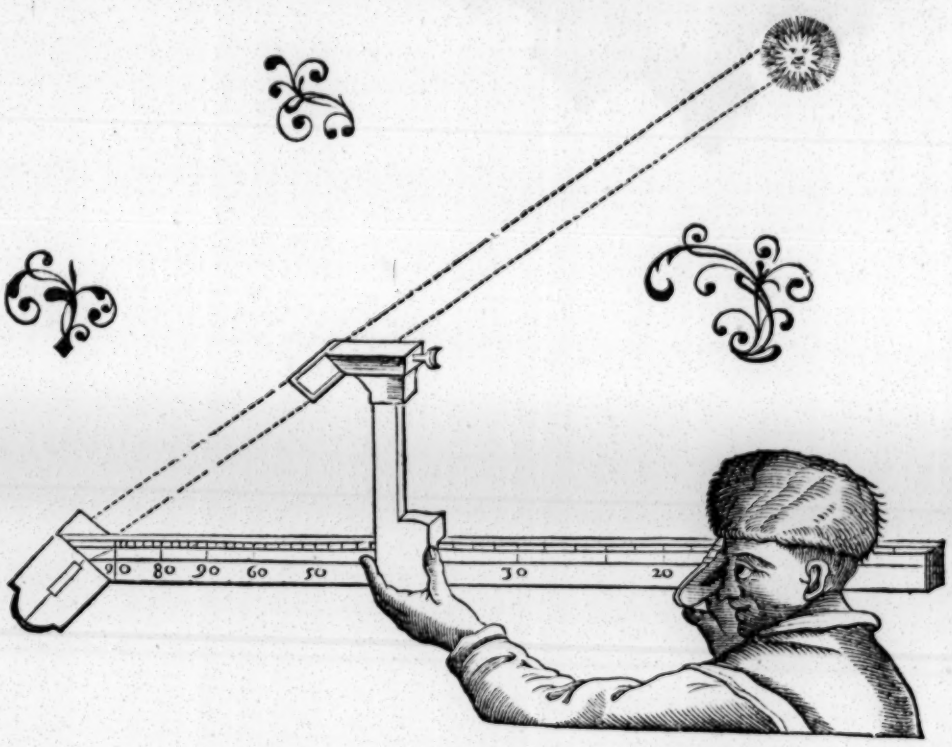
ward alongſt the circle to F, then drow a line from F to A, the angle F A B is a juſt triangle, & the bow B D E F is a juſt quadrant or fourth part of a circle, the parts B D, D E, E F, devide each in three parts, againe into five, ſo ſhal the quadrant bee divided into 90 gr. You may divide into leſſe as halfes, thirds, fourths, if you will. The quadrant being thus divided, lay a ruler, on the end A, and the other end on the point of the other diviſions, and ſo draw lines from the point A, throug all the other points, as long as they may ſtand on the board, as is to be ſeene in the Figure above.

That being done, the preparation is made; to marke the peece, take firſt the juſt wideneſſe with a paire of Compaſſes, that is betweene E G, the foremoſt edge of the long croſſe, and A B the outermoſt edge of the eare, in the little Croſſe, as in the ſecond Figure, and put that on the peece of the poynt D, on the left roundell inward toward C, on that poynt draw a thwart Line, from thence you ſhall begin to marke, that the wideneſſe be-

betweene the middle line of the ſtaffe, and the under edge of the eare, which is in the uppermoſt croſſe, as in the foreſayd figure N°. 2 from F to A, prick that on the quadrant from A toward F in H and from C to G in I, and draw the line H I. Then obſerve how all the lines comming from A the center of the quadrant, cutting through this line even ſo muſt the peece be marked beginning at the poynt C with 90, 80, 70, &c. But if ſo doing, you cannot get ſo many degrees on the ſtaffe, as you deſire to have (for your uſe) then ſeth the little croſſe a third or fourth part lower toward the great croſſe at your pleaſere, ſo that the under edge of the eare A B in the figure N°. 2. may come to ſtand at M N, then in the place of te length F A take F M, & thruſt it in the quadrant of A toward F. into K, & from C unto L. and draw the line K L, that then will bee markeſt as it ought, by cutting the lines, comming from the center throug the deviſion of the quadrant, but you muſt take a certaine marke in the long croſſe for to ſet the little croſſe in ſuch manner as you would uſe both marking. But if you would make more markes on the ſame peece, you muſt ſlide that little Croſſe more netherward and then doe as was ſayd before, but you may not forget to make certaine markes in the long croſſe; for to ſet the little Croſſe well according to the marking, which you deſire to uſe.

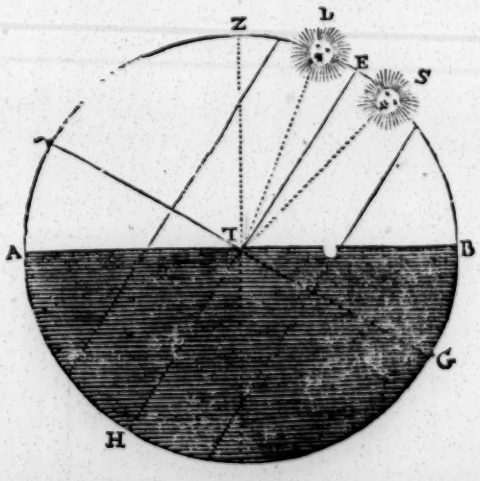
To marke this croſſe ſtaffe from tables more prefectly, draw on an even board paſted with paper a right or ſtraigt line, as long or longer then the ſtaffe that you deſire to marke. You ſhall with the compaſſe take the wideneſſe of the ſtaffe, between the middle line, & the northermoſt edge of the eare at the little croſſe, as it is in the figure N. 2. F A or F M, or alſo F O, what marking ſoever you deſire to follow ſet that widneſſe taken as often alongſt that foreſayd lines as you can, and each of theſe lenghts you ſhall divide in 10000 parts, this table in this place ſhewes how many of theſe parts you ſhall a poynt for a degree, or a fourth parth of a degree, beginning, as in the figure a foreſayd N°. 2. from the point C. The firſt columne of the table ſheweth the degrees, the ſecond the minutes the third the parts, which you muſt take for the degrees, and minutes for the firſt halfe degree or 30 minutes 87, for a degrees, 175, for two degrees 15 minutes 393. but for 6 degrees 45 minutes 1184 parts; but if you cannot divide ſo ſmall a breadth as of F E, or F O, into 10000 parts, then you may divide it into halfe ſo many parts, & ſo you ſhall take ſo many parts for a degree or part of a degree, if you cannot doe that, you ſhall devide it into 1000 parts, at every time, leaving out one letter in the table, as when you ſhould take for the firſt degree 175 take 17, and as neare, as you can one halfe, for the 8 degrees in the place of 1405, take 140, and ſo forward.

Laſtly, draw two parallel lines, on the leaſt roundell ſtanding on the outermoſt end of the ſtaffe, which may be perfectly ſeene, whereof the one muſt goe through the midſt of the eyhole as O P, the other ſo much higher that the breadth of the eare at the little roundell Q R if you make a good breadth betweene theſe two lines of like widneſſe, it will be ſo much the more ſerviceable for uſe; this croſſe ſtaf being thus compleately made. Theuſe of it to take the height is this: you ſhall ſet it with the back toward the Sunne (as you ſee in this figure here beneath) & looke throug the ſight of the moveable runpeece, then ſhall you likewiſe ſee the Horizon through the eyhole of the leaſt unmoveable peece, and keepe that as ſtraight as you can, but if you uſe a croſſe as in the figure N. 1. is marked with S. then you ſhall hold te lower edge V X. right on the Horizon, as you doe in the common croſſe ſtaffe. Then you ſhall ſlide with your hand



the long croſſe to and fro upon the ſtaffe, until the ſhadow of the eare at the uppermoſt little croſſe fall into the open field, on the leaſt unmoveable thin peece on the end of the ſtaffe, juſt between the two parrallel lines above the ſight hole, to with in ſuch manner; that you may at onceſee the Horizon throug bot the ſight holes, and the ſhaddow of the above-ſayd eare even above the two foreſaid parrallel lines that being once obtained, the great croſſe will ſtand juſt by the degree of the true height of the Sunne, to wit, according to ſuch marking as the uppermoſt little croſſe (being high or low) is ſet.

Having found the height of the Sunne, if the declination be northerly, you ſhall ſubſtract it from the height found, that is to ſay, if you are in the northſide of the Sunne, that is if the Sunne be ſoutherly, but if the declination be ſoutherly, then you adde it to the height found, and ſo you ſhall finde the height of the Equinoctiall, which being taken from 90 you ſhall finde the height of the Pole, as by example: Let the Sunne, as in the figure



here by ſtanding, bee elevated above the Horizon B D 70. degrees the northerly declination E D 10 degrees; If you take theſe from B D 70 degrees, there remaines 6 degrees, the height of the Equinoctiall, this beeing taken from B Z, or E G 90, there remaines E Z, or B G thirty, juſt at P A the corner of te Pole.

But if you marke this ſtaffe with the number inverted, ſo that in the place of 90 you ſet 0 for 80. 10 for 70. 20. and ſo forth, as the common croſſe ſtaffe is marked ordinarily, which you uſe toward the Sunne, you muſt then on the contrary uſe the northerly declination, & ſubſtract the ſoutherly & ſo at the firſt without further marking, you have the height as it is in the figure, if as in that which went before you to the height of the Sun beeing elevated at D 70 gr. you ſhall in place 70 finde on the ſtaffe 20 that is not the height of the Sun from the Horizon B D, but the fulfilling of the heigt to 90 degrees as D Z, that is the diſtance, of the Sun and Zenith, if then you joine to it the northerly declination D E 10 gr. that makes together E Z 30 degrees, the diſtance of the Equinoctiall and Zenith, and juſt at P A the elevation of the Pole. In the ſame manner if the Sun hath ſoutherly declination, and is riſen from the Horizon 50 grad. as in S. you ſhall not find on the ſtaffe 50 gr. for B S, but 40 gr. for S Z the diſtance of the Sunne and the Zenith. Then if you take S E the ſoutherly declination from S Z 40 there remains E Z 30 degrees, for the diſtance of the Equinoctiall and the Zenith juſt at P A the height of the Pole.

That the unſliding peece ſhould be moveable by the ſight it is done for 2 cauſes; firſt that you may ſlide it metherware or outward as theſe and ſliding of the great croſſe requireth, ſecondly, that in foule weather when the waves goe high, you may ſet it inward (as occaſion ſhall require) for your better meaſuring, for where the waves are high and troubleſom long inſtruments, are not ſo fit for uſe es ſhort. This foreſayd croſſe ſtaffe is very fit, to take the height certainely on the firm land, without the uſe of the Horizon. That you may do this, you ſhall lay the ſtaffe on a table or any other flat place in a right line with the water the eye end directly to the ſouth, & with the other end, where the thwart ſliding peeces ſtandeth to the north, on two ſmoot peeces of wood, ſo much lifted up that you may ſlide the long Croſſe to and againe without hinderance, then when the Sunne comes directly ſouth (that is, when the Sunne hath Equall ſhaddow on each ſide of the Staffe) then ſhall you ſlide the long croſſe too and fro, ſo long untill the ſhaddow of the eare at the little Croſſe fall juſt betweene the two parrallel Lines on the thwart Croſſe; That beeing done, you ſhall finde the height of the Sun in the ſtaffe at the long croſſe, which being ſound, you ſhall by that know the height of the Pole or the diſtance of the place where you take the height according to the inſtructions before laid downe.

A Short Instruction,

Here followeth the

TABLE,

By which you muſt marke the foreſaid Croſſe Staffe.

The firſt Colomne ſheweth the deegrees, the ſecond the minutes, which are above the degrees, the third the number of prickes, points or parts, belonging to ſuch degrees & minutes.

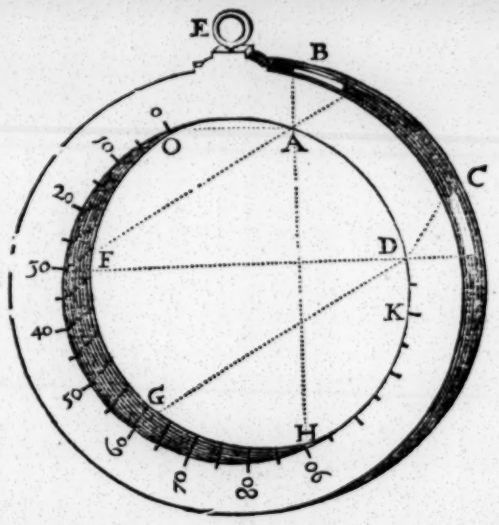
gra.	mi.	parts.	gra.	mi.	parts.	gra.	mi.	parts.	gra.	mi.	parts.	gra.	mi.	parts.	gra.	mi.	parts.
0	0	0	15	0	2680	30	0	5773	45	0	10000	60	0	17320	75	0	37320
	15	43		15	2726		15	5832		15	10088		15	17496		15	37983
	30	87		30	2773		30	5890		30	10179		30	17675		30	38667
	45	131		45	2820		45	5949		45	10265		45	17856		45	39375
1	0	157	16	0	2867	31	0	6009	46	0	10355	61	0	18040	76	0	40103
	15	218		15	2915		15	6068		15	10446		15	18227		15	40866
	30	262		30	2962		30	6128		30	10538		30	18418		30	41653
	45	306		45	3010		45	6188		45	10630		45	18611		45	42468
2	0	349	17	0	3057	32	0	6249	47	0	10724	62	0	18807	77	0	43315
	15	393		15	3105		15	6310		15	10818		15	19007		15	44194
	30	437		30	3153		30	6371		30	10913		30	19210		30	45107
	45	480		45	3101		45	6432		45	11009		45	19416		45	46057
3	0	524	18	0	3250	33	0	6494	48	0	11106	63	0	19626	78	0	47046
	15	568		15	3297		15	6559		15	11204		15	19840		15	48087
	30	612		30	3346		30	6619		30	11303		30	20057		30	49152
	45	655		45	3394		45	6682		45	11403		45	20278		45	50273
4	0	699	19	0	3443	34	0	6745	49	0	11504	64	0	20503	79	0	52445
	15	743		15	3492		15	6809		15	11606		15	20732		15	52671
	30	787		30	3541		30	6837		30	11708		30	20965		30	53954
	45	831		45	3590		45	6937		45	11812		45	21203		45	55300
5	0	875	20	0	3640	35	0	7002	50	0	11917	65	0	21445	80	0	56713
	15	919		15	3689		15	7067		15	12024		15	21692		15	58196
	30	963		30	3739		30	7133		30	12131		30	21943		30	59757
	45	1007		45	3789		45	7199		45	12239		45	22199		45	61402
6	0	1051	21	0	3839	36	0	7265	51	0	12349	66	0	22460	81	0	63137
	15	1095		15	3889		15	7332		15	12460		15	22727		15	64971
	30	1139		30	3939		30	74 0		30	12578		30	22998		30	68969
	45	1184		45	3990		45	7467		45	12685		45	23275		45	68669
7	0	1228	22	0	4040	37	0	7535	52	0	12799	67	0	23548	82	0	71154
	15	1272		15	4091		15	7904		15	12915		15	23847		15	73478
	30	1317		30	4142		30	7672		30	13032		30	24442		30	75957
	45	1361		45	4193		45	7734		45	13151		45	24343		45	78606
8	0	1405	23	0	4245	38	0	7815	53	0	13270	68	0	24751	83	0	81443
	15	1450		15	4296		15	7838		15	13391		15	25065		15	84489
	30	1495		30	4348		30	7954		30	13514		30	25386		30	87769
	45	1539		45	4400		45	8026		45	13638		45	25715		45	91309
9	0	1584	24	0	4452	39	0	8098	54	0	13764	69	0	26051	84	0	95144
	15	1629		15	4505		15	8170		15	13981		15	26394		15	99210
	30	1673		30	4557		30	8243		30	14020		30	26746		30	103854
	45	1718		45	4620		45	8317		45	14155		45	27106		45	108829
10	0	1763	25	0	4663	40	0	8391	55	0	14281	70	0	27475	85	0	114300
	15	1808		15	4716		15	8466		15	14415		15	27852		15	120346
	30	1853		30	4770		30	8541		30	14550		30	28239		30	127062
	45	1899		45	4923		45	8617		45	14687		45	28635		45	134566
11	0	1984	26	0	4877	41	0	8693	56	0	14826	71	0	29042	86	0	143006
	15	1989		15	4931		15	8770		15	14966		15	29459		15	152570
	30	2034		30	4986		30	8847		30	15108		30	29887		30	163498
	45	2080		45	5040		45	8925		45	15252		45	30326		45	176105
12	0	2126	27	0	5095	42	0	9004	57	0	15398	72	0	30777	87	0	190811
	15	2171		15	5150		15	9083		15	15547		15	31240		15	208188
	30	2217		30	5206		30	9163		30	15697		30	31716		30	229038
	45	2263		45	5261		45	9244		45	15849		45	32205		45	254518
13	0	2309	28	0	5317	43	0	9325	58	0	16003	73	0	32708	88	0	286362
	15	2355		15	5373		15	9407		15	16160		15	33226		15	327302
	30	2401		30	5429		30	9490		30	16318		30	33759		30	381885
	45	2447		45	5486		45	9573		45	16480		45	34308		45	458295
14	0	2493	29	0	5543	44	0	9657	59	0	16643	74	0	34874	89	0	572900
	15	2540		15	5600		15	9742		15	16808		15	33457		15	763900
	30	2506		30	5657		30	9827		30	16977		30	36059		30	114588
	45	2632		45	5715		45	9913		45	17147		45	36680		45	229181

The 26. Point. Concerning the uſe of the ſearing.

THe Aſtrolabiums which men now a dayes commonly uſe at Sea, I meane that with a Dioptra, upon which ſtand two penullen, and are not verry ſerviceable by reaſon of the continuall motions of the Ships to bee uſed at Sea unleſſe the penullen upon the Dioptra are placed neere by one another, for then the Shipmaiſters ſometimes uſe the Aſtrolabium in the meaſuring of the Sonne. Nevertheleſſe the Aſtrolabium can have no ſuch perfection in it, for the Dioptra in the ſayd Aſtrolabiums are placed almoſt 2 or 3 inches at moſt the one from the other, and if ſoo bee, in a little time, a ſmall fault or miſtake happen in the obſervation of the ſhaddows even as throug motion of the ſhip it may eaſily happen, ſo alſo muſt the Dioptra upon the degrees of the Limbus make a greater miſtake and fault.

Therefore have I here ſet downe this figured & drawne Ring which you may let bee made ready or prepared by Meſſig about one foote or a foote & a halfe wyde and 2 or 3 inches broad. For in the uſe of it you have no neede of a Dioptra but you let the Sonne ſhine throug the little holes becauſe the ſhaddow may the more perfectly and narrowly bee obſerved, ſo, then let the ring bee covered on both ſides onely that there may bee ſome opening left that ſo the degrees which ſtand marked on the inſide may bee fitly ſeene and uſed.

Theſe degrees fall once more wyder one from the other then in the Limbus of the Aſtrolabium, becauſe in this the ſhaddow falleth out of the circumference, or out of the ſides and not (as it is the Aſtrolabium) out of the Center, and therefore is the whole circumference of the Ring according to the Art of Geometry devided into 180 degrees whereas on the contrary in the Aſtrolabium the Limbus or round ring encompaſſing it containeth 360 degrees.



The beginning of the degrees beginneth by the letter O, right even againſt the little hole over that which is placed next by the Ring throug which you let the ſhaddow fall, the one ſtands by the letter B, placed about 10 degrees from the pendel E, by which the ring is hung. The other little hole C. ſtands juſt 30 degrees diſtant from the little hole B. Becauſe: when the Sunne is not verry high above the Horiſon, then we receive the ſhaddow through the little hole C, and then wee begin to count the degrees not farre from the letter O, as beforeſayd, but from the letter F, ſtanding right juſt over againſt C. juſt 30 degrees diſtant from O.

This ring being thus made I ſhould thincke it moſt fitting to ſignify the height of the Sunne, notwithſtanding the Shipmaiſters now adayes uſe the degree-bow, which nevertheleſſe are greately ſubject to faults and miſtakes.

The 27. Point. Of the breadth of the Landt.

THe breadth of Lands or Countries is no other, then the diſtance or widneſſe that is betweene the ſayd Lands and the Equinoctiall Line, which is reckoned in a double manner, that is northerly and ſoutherly, to the number of 90 Such Lands or Countries as lye right under the Equinoctiall Line have no breadth: but ſuch as lye north ward from it, have northerly breadth, and they that lye ſoutherly have ſoutherly breadth.

Example.

The Iland of S. Thomas, in the river Gaban in Guinea lyeth right under the Line, and therefore hath no breadth neither northerly nor ſoutherly.

The C. S. Vincent in Spaine lyeth northward from the Line 37 degrees and therefore the northern breadth of Cape S. Vincent is 37 degrees.

The poynt of Lizart in England lyeth northward from the Line 50 degrees therefore the north breadth of Lizard is 50 degrees.

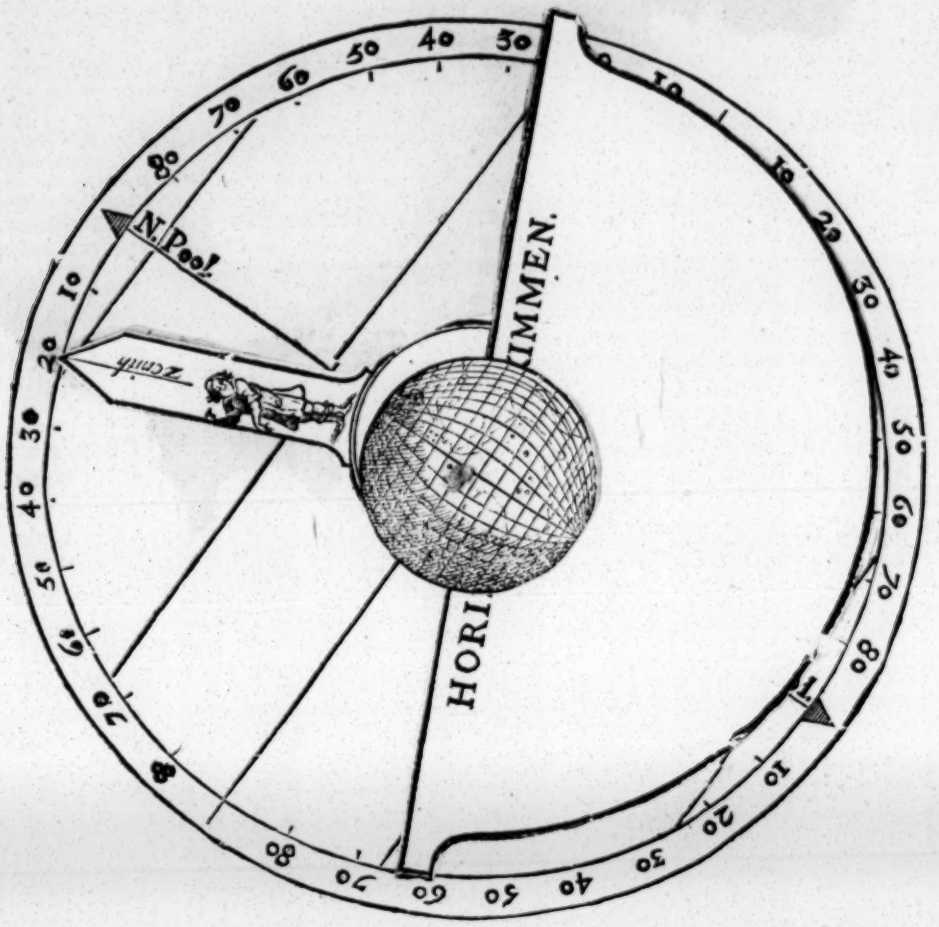
The Cape de Bona Eſperance lyeth ſouthwardt from the Line 34 degrees and a halfe, therefore the ſoutherly breadth of Cape de Bona Eſperance is 34 degrees and a halfe. In like manner you muſt underſtand and reckon their Lands, Countries and Townes.

The 28. Point. Of the height off the Lands and Countries, and what it is.

THe height and breadth of Lands and Countreyes althoug that in themſelves they are divers things, yet they are allwayes one like unto the other. Any Countrey being ſcituated under the breadth of 30 degrees, lyeth alſo in the height 30 degrees, which by Sea-faring men is taken without difference, but what it is, or what it hath in it orſignifieth few men underſtand, and yet it behoogeth a Sea-faring men, that ſeeketh for the height of any Countries, to bee expert therein, for that no man without it can well underſtand how many inſtruments (whether it bee Aſtrolabium, or Croſſe ſtaffe, no nor the Sea-compaſſe it ſelfe) ſhould well bee uſed: for that theſe things are all built upon one foundation, & like a chaine hang one upon the other. But it may bee that ſome man will object & ſay, that there are many Pilots which doe not well underſtand ſuch things and yet are able to goe directly unto divers places, whether they deſire to ſayle: which I confeſſe to bee true: but tell me how many times are they deceived; How many times are they in great doubt & feare? and how ſeldome dare they truſt unto the height which they have taken or reckoned, when they are to ſeeke out any Countrey thereby? How oftentimes hath it heretofore happened, that for want of ſuch knowledge, ſhippes have ſayled out of their way either, behinde England, or upon France, which thought to paſſe through the channell between England and France, and that in ſo ſhort and well knowne, and common ſayled water, as to come out of Spaine or France? What would ſuch men doe, if they ſhould paſſe the Line, and where to ſeeke or finde out certaine Ilands? Or that after they had ſayled up and downe the Seas certaine moneths together, ſhould then ſeeke out for Land; but I am of this opinion which I know every man will grandt that it is much better and more aſſured to goe away being guided by his owne eye-ſight, then like a blinde man to bee led by another, and knoweth noth whether that other feeth well or not: but to come againe to our matter, touching the height of Countries, it is no other but the height of the Pole above the Horizon, that is to ſay, ſo mane degrees as the Pole in any Land is lifted up above the Horizon, ſo much is the height of ſuch a Country: And this height agreeth allwayes with the breadth as aforeſay. In the 10. Chapter it is ſhewed, that whereſoever a man goeth or turneth, alwayes the one halfe of the heavens ſhewet ith ſelfe above the Horizon and the other halfe is hidden from us: in the firſt Chapter it is ſayd that the two Poles ſtand right one againſt the other, whereby it is evidently to bee underſtood, that whenſoever a man being upon the earth is right under the Equinoctiall Line, that then both the Poles of the World, lye right in the Horizon, one in the ſouth, and the other in the north: And as a man travaileth northward from the Equinoctiall Line; and winneth breadth northerly, ſoo much the north Pole riſeth above the Horizon: and the ſouth Pole contrarywiſe goeth ſo much under: and on the contrary, as many degrees as a man goeth from the Equinoctiall Line ſouthward, and winneth

breadth ſouthward, ſo much the ſouth Fole riſeth above the Horizon, and the North Pole goeth ſo much under which may eaſily be underſtood by the figure here after following.

In this figure the innermoſt roundel that runneth about, ſignifieth the Haven, N. the North Pole, S. the South Pole, Æ. the Equinoctiall, the uppermoſt edge of the halfe moveable roundell, ſignifieth the Horizon, the one halfe of the Heavens is above it, and the other halfe juſt under it, the round ball in the middle ſignifieth the earth, where in you ſee a little man, that may be turned upon the earth ſouthward and northward.



Now perfectly to marke and perceive that which is before written, that is to know what height is, and that it alwayes agreeth with the breadth, bring the little man upon the Earth Globe right under the Equinoctial, that is to ſay that it have no breadth, neither northward nor ſouthward, then you ſhall ſee that both the Poles lye juſt with the Horizon, and that neither of them both are elevated above it, nor depreſſed under it, and witthall, you ſhall ſee that they that dwell under the Equinoctiall have no height or elevation of the Pole, nor yet any breadth. But if you remove the man ſo much northward that hee goeth tenne degrees upon the earth, that is, that he commeth tenne degrees upon the north breadth, you ſhall ſee that the north Pole ſhall bee rayſed or elevated tenne degrees above the Horizon in the North, and the South Pole ſhall goe tenne degrees under the Horizon: And if you remove the man upon the earth more northerly, as thirty, forty, or fifty degrees, the North Pole will alſoo bee ſo much elevated, and the South Pole to the contrary ſo much depreſſed under the Horizon: ſo that if you turne the man upon the earth to 19 degrees, then the North Pole alſo will bee elevated 19 degrees, that is the Pole will ſtand right above his head, and the Equinoctiall will joyne with the Horizon in one circle: that which thus is ſayd of the elevating of the north Pole, is alſo in the ſame manner to be underſtood of the South Pole: for if you likewiſe move the man upon the earth in the figure toward the ſouth, the ſouth Pole will be elevated above the Horizon, as much as the man breadth goeth ſouthward, and the North Pole will goe ſo much under the Horizon.

One thing is herein to be noted, that as much as the Pole riſeth above the Horizon juſt ſo much the Equinoctiall goeth under it, and when the Pole goeth under the Equinoctiall riſeth againe in equall proportion.

But above all you muſt marke, that the number of the Poles elevation added to the height of the Equinoctiall allwayes make even ninety degrees, ſo that when the Pole is elevated 30 degrees in the north, the Equinoctiall is elevated ſixti degrees in the ſouth: but if the ſouth Pole bee elevated above your Horizon 20 degrees, the Equinoctiall will bee elevated in the North 70 degrees, which is clearly underſtood and ſhewed in this manner: we alwayes ſee halfe the Heavens above the Horizon, (as aforeſayd) which is twice ninety degrees, from the ſouth to the Zenith or the poynt juſt over our heads and from the Zenith to the Horizon in the North. Now ſeeing that betweene the Equinoctiall & the Pole there are alwayes 90 degrees, (as is ſhewed in the ſecond Chapter) in followeth that which is beneath the Pole & the Equinoctiall, maketh alſo 90 degrees: therefore when wee know the height of the Equinoctiall, and take it out of ninety, that which reſteth over is alwayes the height of the Pole, this alſo may bee ſeene in the figure aforeſayd.

The 29. Point. Concerning the difference and agreement of the Declination in divers places of the Earth.

THeſe Tables of the Suns declination are reckoned upon the Meridian or lenght of the earth from the weſtend of Engeland. Thoſe which are more eaſterly from thence, have the leſſe declination, when the Sun departeth from the Line; and increaſeth in declination either towards the North or South well betweene the 20 of March, and the 22 of June, as betweene the 23 of September, and the 22 of December, and the greater declination, when the Sun returneth againe towards the Line, whether it bee by north or by ſouth the Line as well betweene the 22 of December, and the 20 of March, as betweene the 22 of June; and the 23 of December.

On the contrary, thoſe which are more weſterly from thence, have the waxing declination, that is when te Sun runneth from the Line either by North or by ſouth the Line, the greater Declination and the falling Declination that is when the Sunne runneth againe towards the Line, either

either by North or by South the Line, maketh the leſſe. That commeth to paſſe by reaſon of time, thus. Thoſe which are more eſterly have the Sunne ſooner in the ſouth or in the Meridian, and therefore is the waxing declination leſſe, and the falling greater, on the contrary thoſe which are more weſterly have the Sonne later in the South, and therefore have they the increaſing declination more, the decreaſing leſſe.

The firſt Example.

Concerning thoſe which are more eaſterly with riſing declination upon the 25 of March in the ſecond yeare following the Leap-yeare I deſire to know the Sonne declination at none at Bantam in the Eaſt-Indies. Firſt I ſeeke upon a Globe or any other Table, how much more Eaſterly Bantam lyeth then the Lands end of Engeland, & I find it to bee about 120 degrees (herein wee reckon not ſo neare upon a degree or two, becauſe ſuch a difference is but little in this reſpect) whilſt then the Sonne muſt have 24 houres to run about the heaven or the whole earth which it 360 degrees, I ſeeke how much time hee muſt have to run 120 degrees, and I ſay thus: 360 degrees make 24 houres, what maketh then 120, facit 8 houres, from thence I find that the Sunne commeth 8 houres ſooner to the South at Bantam then at the Lands end of Engeland, that is: That the Sunne is full South at Bantam, when it is but 4 a clock after midnight at Engelands Lands end. Then I looke in theſe Tables upon the above written 25 of March for the declination of the Sun, and I find it to bee 1 degree 57 minutes, and (out of the declination on the day following 2 degrees 21 minutes) that the declination of the Sun at that time in 24 houres increaſeth 24 minutes, therefore ſay I: if the declination increaſe 24 minutes in 24 houres how much in 8 houres? facit 8 minutes, from thence it is cleare that ſeeing the Sun runneth from the Meridian over Bantam to the Meridian of Engelands end, and the declination riſeth or increaſeth 8 min. that it at Bantam is 8 min. leſſe as theſe tables declare. The Suns declination is that day at Bantam no more then 1 degree and 49 minutes by north the Line.

The ſecond Example. With falling Declination.

UPon the 16 of the ſame yeare I deſire to know the Suns declination at noone, at Bantam and I find in theſe Tables upon that day for the length of England Lands end 2 degrees 40 minutes, that it decreaſeth every day at that time of the yeare 24 minutes. Seeing then the Sun (as is ſayd in the firſt example) cometh 8 houres ſooner to the South at Bantam then at Englands end, I ſay doth the declination decreaſe 24 minutes in 24 houres, how much maketh it in 8 houres? it maketh 8 minutes from thence it is knowne, that ſeeing the Sonne runneth from the Meridian of Bantam to that of Englands end, and the declination falleth 8 minutes, and therefore at Bantam it is 8 min more, even as theſe Tables declare. The declination of the Sonne on that day is at Bantam 2 degrees and 48 minutes.

Obſervation.

From hence it followet: That one and the ſame Steerman, ſayling eaſtwards to the Indies, comming upon two ſuch divers times before the Straite of Sunda, and would take the height of the Pole according to the Sun of one and the ſame corner of Land, and ſhould uſe theſe Tables without ſuch caution, hee ſhould (thoug hee thought it wel done) thereby (taking one time 8 minutes ſo much and the other time 8 minutes to little declination) hee ſhould find it to differ 16 minutes in his height, therefore in long voyages you muſt thinke wel upon this.

The third Example. Concerningh thoſe which are more Weſterly with riſing Declination.

A Certaine Ship comming upon the 9 of October in the third yeare after Leap-yeare upon the greate South Sea, neare the Coaſt of Peru, the Steerman deſireth to know the Suns declination there at noone, hee findeth (out of a Globe or any other Table) that that Coaſt lyeth full 80 degrees more Weſterly then Englands Lands end. The Sun muſt then run from the South over Englands end to the South of the foreſayd Coaſt of Peru full 80 degrees, to which hee requireth about 5 houres and an halfe, ſo that when the Sun ſtandeth there in the South, it is then from Englands end halfe an houre paſt 5 in the afternoone. Hee findeth in theſe Tables the declination of that day 6 degrees 13 minutes by South the Line, and (out of that of the following day which is ſix degrees 36 minutes) that at that time in 24 houres the declination riſeth 23 minutes therefore ſhall hee ſay: the declination riſeth in 24 houres 23 minutes, how much then in five houres and a halfe? facit full 5 minutes, & from thence we find, that ſeeing the Sun running from the Meridian of Englands end to hert of the Coaſt of Peru riſeth full 5 minutes, and thereupon the Declination on that day is there 5 minutes more, even as the tables demonſtrate. The declination then on that day on the Coaſt of Peru is 6 degrees 18 minutes.

The fourt Example. Concerning the falling declination.

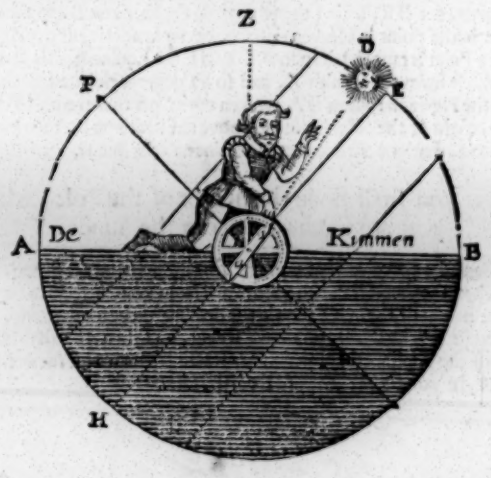
SUppoſe that ſuch commeth to paſſe on the foreſayd Coaſt of Peru on the 8 September the ſame yearre, theſe tables point at the declination of that day 5 degrees 46 minutes, and the day following 5 degrees 23 min. ſo as upon that time of the yeare in 24 houres times the declination leſſeneth 23 min. The Steerman ſhall then reckon thus, if in 24 houres the declination leſſeneth 23 min. how much is that in 5 houres and a halfe? facit full 5 min. and ſhall from thence find that his declination is there 5 minutes leſſe, as theſe Tables inſtruct, the Sonnes declination then upon that day is upon the Coaſt of Peru 5 degrees 42 minutes from hence may bee underſtood, what it is which before is ſayd in the example of the more eaſterly, that a Steerman whee would looke after the Sun on the Coaſt of Peru upon ſuch two divers times the ſame place, and would uſe theſe Tables of declination without the foreſayd care and caution, thoug hee ſayle rigt and well ſhould nevertheleſſe find 10 minutes difference.

The fifth Example.

Suppoſe two ſhips beeing together depart from theſe Lands, the one ſayleth eaſtwards, & commeth according to his reckoning upon the 26 of September in the firſt yeare following the Leap-yeare on the other ſide of the world, I ſuppoſe 180 degrees, in longitude diſtant from Englands end, and find in theſe Tables the Declination of the Sun on that day two degrees 0 minut. The other ſhip ſayleth weſtwards, and meeteth the firſt ſhip at the foreſayd place according to this reckoning not upon the 26 of September but upon the 25 and findeth the Declination in theſe Tables for that day one degree 24 minutes, and ſo differ as well in the time one day, and accordingly in the Declination 24 minutes, which commeth to paſſe from this the firſt ſayled towards the Sunriſing 180 degrees, hath ſhortened his time 12 houres. The other ſayled with the Sonne 180 degrees hath lengthened his time 12 houres, and thereby hath that one nigt leſſe then the other whilſt then the Declination at that time increaſeth in one day 24 minutes, ſo muſt hee that is ſayled eaſtwards reckon 12 minutes Declination leſſe, and hee that is ſayled weſtwards muſt reckon 12 minutes more, as the Tables each and ſhall have one ſort of declination to with one degree 12 minutes haved.

The 30 Point. How to finde the height of the Pole by the Sunne.

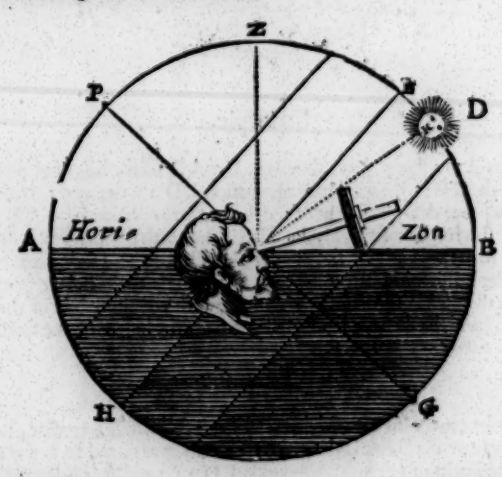
TO find the height of the Pole by the Sunne, one thing is ſpecially to bee marked, to witt, whether you are northward or ſouthward from the Sunne, whether the Sunne ſtandeth northward or ſouthward from you is eaſily knowne, when you are in ſuch a place upon the earth as is farre from the Line, or from the Sunne, but when the Sunne is neare almoſt above your head, then you connot well ſee it with jour eye, therefore ſet a Compaſſe before you that you may ſee where north and ſouth it, then take your Aſtrolobium, and ſet is ſo that the one edge there of ſtand right ſouth, and the other north, and then you ſhall ſee at a hayres breadth, wheter the Sunne beeing at the height, ſtandeth northward or ſouthward from the head point or Zenith: if then you will ſeeke the height of the Pole, when you are on the northſide of take the juſt height firſt, and as mus as the Declination of the Sunne is northward, take it out of your height and that which reſteth is the height of the Equinoctiall in the ſouth, which ſubſtracted out of ninety (as in the former Point is Declared) then you have the height of the North Pole.



Example.

In this figure let P bee the North Pole, and G the South Pole, E H the Equinoctiall, A B the Horizon, Z the Zenith, and D the Sun: let the height of the Sun B D bee ſixty degrees above the Horizon: The northerly Declination D E 8 degrees: if then you take D E eight degrees from B D the height of the Sunne, there will reſt B E 52 degrees, which is the height of the Equinoctiall, which taken out of 90 degrees, reſteth 38 degrees, for the height of the North Pole A P, as in the ſevent Point is ſheweth.

If the Declination bee ſoutherly, then adde unto the height aforeſayd taken: and then if the addition bee leſſe then 90, then looke upon the height of the Line in the ſouth which taken out of 90, as a foreſayd, it leaveth you the height of the North Pole.

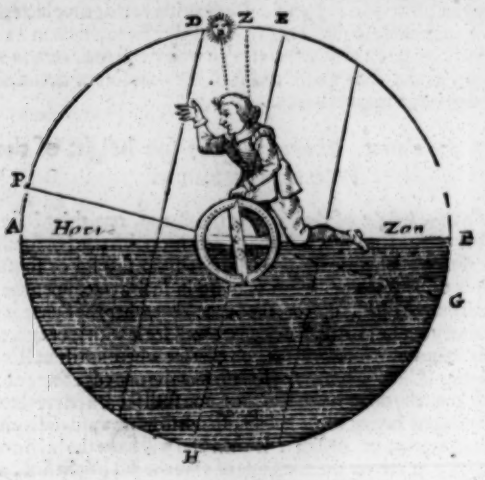


Example.

Let the height of the Sun bee D B 40 degrees, the ſoutherly declination of the Sun E D 20 degr. then adde E D 20 degr. to D B 40 degrees, it maketh E B 60 degrees the height of the Equinoctiall, which ſubſtracted from

from 90, as E G the diſtance betweene the Equinoctiall & the ſouth Pole; then there well reſt 30 for G B, that is, as much as the ſouth Pole in gone under the Horizon: as before is ſhewed, ſo much as the one Pole is under the Horizon, juſt ſo much is the other above it, the north Pole P ſhall here be elevated 30 degrees.

But if the height of the Sunne being added unto the declination maketh more then 90 degrees, then you muſt underſtand, that the Equinoctiall is northward from your head juſt ſo much as the foreſayd addition is more then 90 and ſo conſequently the ſouth Pole alſo ſhall bee ſo much elevated.

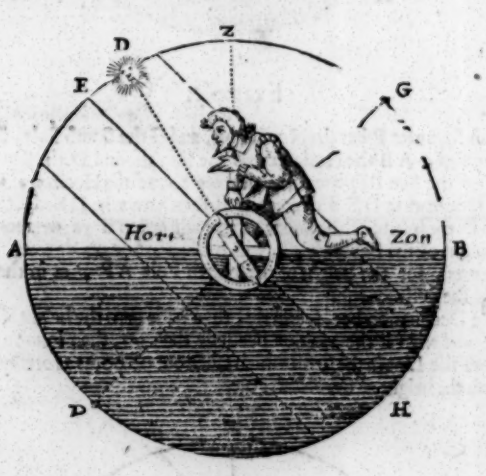


Example.

Looke into the figure next following, wherein let the height be D B 80 degrees, and the ſoutherly declination E D 18 degrees, then if you adde E D 18 degrees to B D 80 degrees, the height of the Sun there will be 98 degrees, for B E, ſeeing then that from the Horizon B, to the Zenith Z (that is the point in Heaven right above our heads) is juſt 90 degrees as in the 22 Point is taught) it followeth that E the Equinoctiall is 8 degrees northwards from the Zenith Z, and ſo 82 degrees elevated in the north, above the Horizon: when E A is taken out of 90 there reſteth 8 degrees for the height of the ſouth Pole, G above the Horizon B, then you muſt underſtand, that you are betweene the Line and the Sunne.

How you ſhall finde the height of the Pole, when you are ſouthward from the Sunne.

WHen you perceive that you are ſouthward from the Sunne, that is when the Sunne ſtandeth northward from you, firſt (as a foreſayd) take the height of the Sun: then if the declination be ſouthwards, take it out of your height which you have found, and then you ſhall have the height of the Equinoctiall, which ſubſtracted from 90, it ſheweth under what height you are, ſouthward from the Line.



Example.

Behold the figure above ſtanding, Let A D be the height of the Sunne in 64 degrees: the ſoutherly declination E D 16 degrees: which ſubſtracted from A D the height of the Sunne, there remaineth for A E 48 degrees, the height of the Equinoctiall in the north, which ſubſtracted out of 90 then the height of the South Pole G B will be 42 degrees.

If the declination bee northerly, then adde it to the height found out, if then the addition be leſſe then 19 it ſheweth you the height of the Equinoctiall, which taken out from 90, you finde the height of the ſouth Pole.

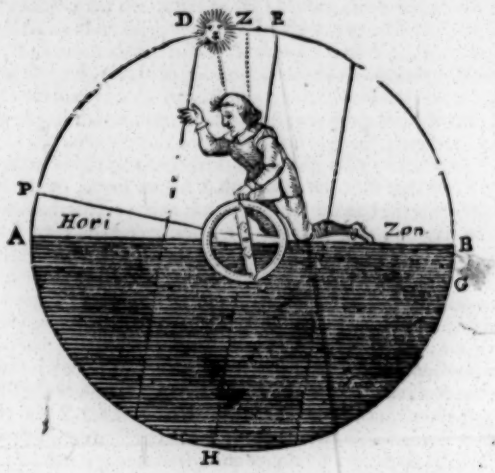
Example.

Looke on the figure with his circles as is followeth here after, let A D the height of the Sunne in the North bee 50 degrees, and D E the northerly declination 15 degrees, then adde E D 15 to D A 50 degrees, then you have 65 degrees for A E is the height of the Equinoctiall, then G B the height of the ſouth Pole is 25 degrees for as in the 27 Point it is ſheweth, the height of the Equinoctiall E A with the height of the Pole G B allwayes make 90 degrees.

But if the height and the declination of the Sun added together make more then 90, you muſt note that the Linie is ſouthward from you Zenith, as much as that number is above 90.

Example.

Look on the following figure, let the height of the Sunne A D in the north be 84 degrees, the declination E D 21 degrees adde them together, then you have A E 105 degrees, which is the diſtance betweene the Equinoctiall E and the Horizon in the north: now marke that A E is 105 and



P the Pole, & the Equinoctiall, are even 90 degrees from each other then it followeth that P from A is 15 degrees, that is the height of the N. Pole above the Horizon, & ſo much you muſt be northward from the Line, & you muſt alſo marke that you are betweene the Line and the Sunne.

How you ſhall finde the height when you are right under the Sunne.

IF you underſtand well the rules before going, then this is eaſie to befound. If you be right under the Sun, that is when the Sun is elevated 90 degrees, then you are even as many degrees northward or ſouthward from the Line, as the Sunne hath northerly or ſoutherly declination.

The explication thereof.

Suppoſe that you finde the height of the Sunne above the Horizon to bee 90 degrees, and that it is declined toward the north 19 degrees, then are you alſo 19 degrees northward from the Line, and the north Pole ſhall bee ſoo much elevated.

But if the Sun hath no declination, that is, when it ſtandeth even in the Line, then you muſt underſtand, that you are alſo right under the Line, and ſo both the Poles are on the Horizon without any elevation.

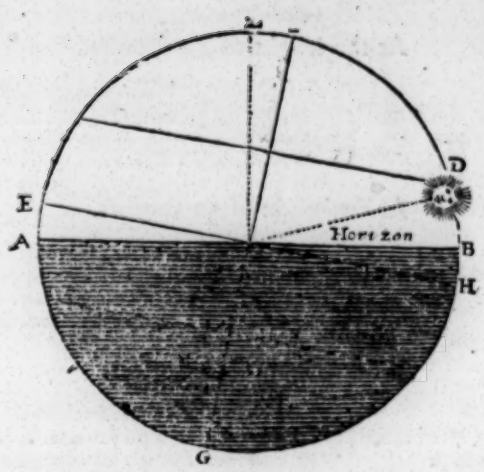
How you ſhall finde the height of the Sunne northward in ſuch places where as it goeth not downe.

THey that in Summer ſayle to Moſcovia, in the moneths May, June and July, comming abouth the North Cape, finde, that the Sunne at that time goeth not downe there, but is allwayes above the Horizon, ſo that a man according to the rules aforeſayd, may not onely ſeeke the height of the Pole by the Sunne, when it is higheſt ſouthward, but alſo when it is northward the loweſt in this manner following. Take the height of the Sun with the Croſſe-ſtaffe, when it is loweſt in the north, and adde there to the filling of the declination, (which is ſuch a number as together with the declination make ninetie, or ſo much as the Sunne ſtandeth from the Pole) and you ſhall find the juſt height of the Pole: or if you ſubſtract the height of the Sunne from his declination then you ſhall find how deep the Equinoctiall is depreſſed northward under the Horizon, or in the ſouth elevared above the Horizon, which ſubſtracted from 90, will likewiſe leave the height of the Pole, both theſe wayes I will declare apart.

Example.

Mark the figure followeth where let B D be the heigt of the Sun about the Horizon, in the north 7 degrees, H D the declination of the Sun 20 degrees, then ſhall D P the filling of the declination, or the diſtance of the Sun from the Pole bee 70 degrees: now if you adde P D the filling of the declination 70, to bee B D 7, the height of the Sun, you ſhall find 77 degrees for B P the height of the Pole.

Exam-

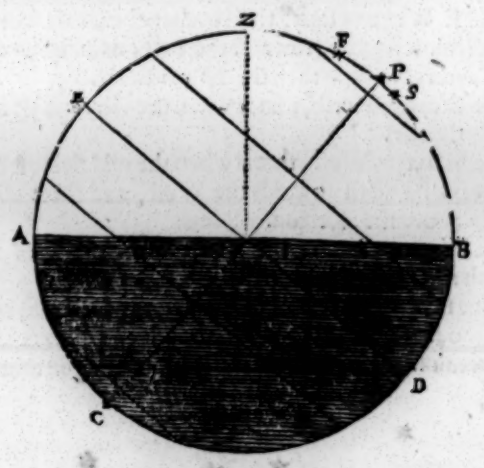


Example.

If you take the height of the Sun A D 7, from H D 20 the declination of the Sun, there will remain 13 for H B, & ſo much is the Equinoctiall in the north depreſſed under the Horizon, which if you ſubſtract from H P 90, there remaineth for A P 77, the height of the Pole as above ſayd.

The 31 Point. How to find the height of the Pole by the Staires.

TO find the height by the Starres which ſtand neere the Equinoctiall, you uſe them either ſubſtracting from or adding there to their declination, as you doe with the Sunne. And thoſe which ſtand neere the Poles you muſt either ſubſtract from or adde to their diſtances from the Pole to their meaſured height and ſo find out the height of the Pole.

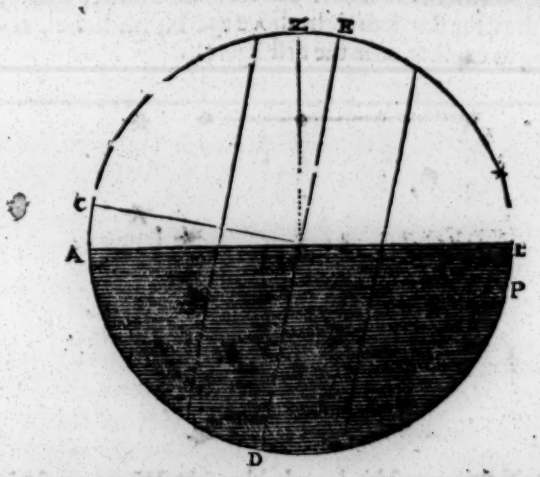


The firſt Example.

Let A B bee the Horizon, P the North Pole, E D the Equinoctiall, S the Northſtarre ſtanding under the Pole, I meaſure the height of the Northſtarre S B, above the Horizon 46 degrees, and for it I find in the Table the diſtance of the Northſtarre from the Pole P S 2 degrees 42 minutes, adding this then to the height that I find B S and maketh together 48 degrees 42 minutes for P B the height of the Pole.

The ſecond Example.

Let F bee the cleareſt of the Wayters above the Poles riſen above the Horizon F B 58 degrees, then this diſtance from the Pole F B being ſubſtracted 14 degrees 14 minutes even as the foregoing Table doth reach you there reſteth for P B the height of the Pole 13 degrees 46 minutes.



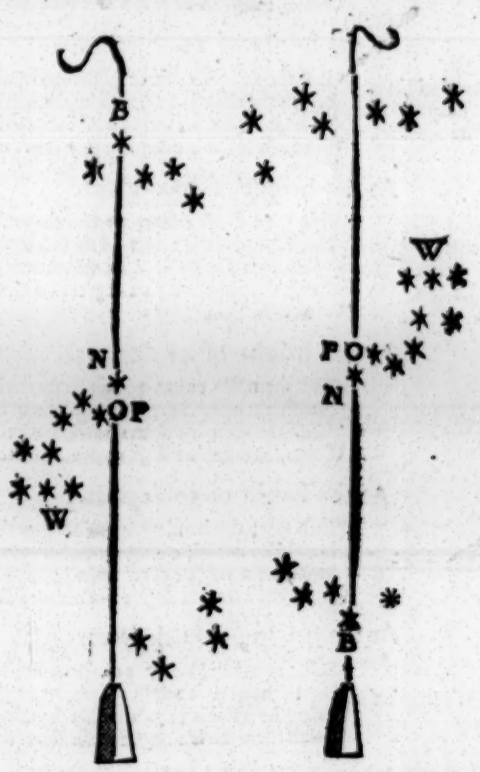
If you come by Southwards the Line, and will uſe the Starres neere the Northpole, you may ſo ſubſtract the height (which you find) from the diſtance of the Starre from the Pole, and to find the depth of the North Pole under the Horizon, even to the height of the South Pole above it.

The third Example.

LEt S bee the Northermoſt hinder-wheele of the greate Wagon, his height above the Horizon in the North B S 20 degrees, which beeing ſubſtracted from S P, which is 26 degrees and 14 minutes beeing his diſtance from the Pole, here remaineth over P B 6 degrees 14 minutes which the North Pole is ſunke under the Horizon and to G A the height of the Southerne Pole.

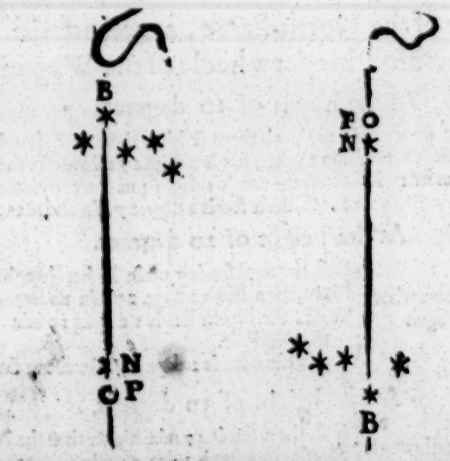
Even as the Southerne Starres beeing full ſouth are at the heigheſt, ſo are likewiſe the Northerne in the North right above the Pole at the higheſt, or under the Pole at the loweſt, this you may well neare ſee by your eye in many which ſtand ſome what farre diſtant from the Pole, to witt, when they ſtand either above or below the Northſtarre, but not right againſt it, by reaſon that the Northſtarre it ſelfe by it owne turning about the Pole, wendet heither on one ſide or other ſomewhat from full North, ſo that when you draw nearer the North, you muſt ſtill bee meaſuring to find our the right higheſt or loweſt.

Now to know when the Northſtarre is either at his higheſt or loweſt pitch, ſtil marke well the greate Wagen, when that commeth under the Northſtarre, ſo that when you let a plummet line hang right againſt the Northſtarre, it may likewiſe come to hang in the middle betweene the Wagon and the horſes, then is the Northſtarre right at this higheſt, above the Pole. Or when the Wagon alſo commeth above the Northſtarre, and when you let a plummet line hang through betweene the Wagon and the Horſes, that that alſo hangeth right againſt the Northſtarre, then is the Northſtarre right under the Pole at the loweſt, even as ſtandeth delineated in the following Figures.



Thus is the Northſtarre rigt above the Pole. | Thus is the Northſtarre rigt under the Pole.

Or when the Starre in the breaſt of Caſſiopeia commeth rigt above the Northſtarre, then is the Northſtarre, above the Pole at its higheſt, and when it is rigt under the Northſtarre, then is the Northſtarre at the loweſt under the Pole, according to the demonſtration in theſe Figure hereunder ſpecified.



The ſtars of the great wagon are knowne to every one. And of the Starres of Caſſiopeia. There are 5 vere cleare the principal in forme, as formerly

 ſtandeth

ſtandeth expreſſed the ſecond of them that is which is fartheſt diſtant from the Northſtarre, and is in the Breaſt, and ſtandeth neere upon as farre from the Northſtarre as the northermoſt fore whele of the greate Wagon, if you hold a ſtraite ſtick upon the ſight, marke on end through betweene the Wagon and the Horſes, and marke it in the midſt over the Northſtarre, and then the other end ſhall ſtretch over the foreſayd Starre, called Caſſiopeias Breaſt.

The 32. Point. The uſe of the Northſtarre, when you take the height by the Wayters, which are on the Northern hinder Wheele of the great Wagon.

FOR as much as many Pilots know not the Names of many of the Fixed Starres, and therefore follow the uſe of the Northſtarre accordingh to the points of the compaſſe: we have for the uſe for theſe men, made two ſorts of Tables the one accordingh to the Wayters (which we have mended) the other accordingh to the northern hinder wheele of the great Wagon, both of them on the foure ſtrokes North, South, Eaſt and Weſt, and in as much as in this kinde or worke the Northſtar hath a different ſtandingh in ſundry heights of the Pole, we have calculated the Tables a greeing to divers heights or latitudes from 10 degrees to 10 degrees as followeth.

At the height of 10 degrees.

When the Brighteſt of the Wayters ſtandeth in the
- Eaſt, then is the Northſtar under the Pole 1 degr. 28 min.
- North, then it is 2 degr. 28 minu. under the Pole.
- Weſt, 1 degree 22 minutes above the Pole.
- South, 2 degrees 18 min. above the Pole.

At the height of 20 degrees.

When the Brighteſt of the Wayters ſtandeth in the
- Eaſt, the n.ſtar is 1 degree 31 min. under the Pole.
- North, the n.ſtar is 2 degr. 18 min. under the Pole.
- Weſt, the n.ſtar is 1 degr. 19 min. above the Pole.
- South, the n.ſtar is 2 degr. 19 min. above the Pole.

At the height of 30 degrees.

When the Brighteſt of the Wayters ſtandeth in the
- Eaſt, the n. ſtar is 1 degr. 35 min. above the Pole.
- North, the n ſtar is 2 degr. 18 min. under the Pole.
- Weſt, the n ſtar is 1 degr. 14 min. above the Pole.
- South. the North-ſtar is 2 degrees 16 min. higher than the Pole.

At the height of 40 degrees.

The Wayters in the
- Eaſt, the n.ſtar 1 degr. 39 min. under the Pole.
- North, the n.ſtar 2 degr. 17 min. below the Pole.
- Weſt, the n.ſtar is 1 degr. 10 min. above the Pole.
- South, the n.ſtar is 2 degr. 19 min. above the Pole.

At the height of 50 degrees.

The Wayters in the
- Eaſt, the n.ſtar is 1 degr. 44 min. below the Pole.
- North, the n.ſtar is 2 degr. 17 mi. below the Pole.
- Weſt, the n. ſtar is 1 degr. 3 min. above the Pole.
- South, the n.ſtar is 2 degr. 20 min. above the Pole.

At the height of 60 degrees.

The Wayters in the
- Eaſt, the n.ſtar is 1 degr. 52 min. under the Pole.
- North, the n.ſtar is 2 degr. 16 min. below the Pole.
- Weſt, the n.ſtar is 53 min. higher then the Pole.
- South, the n. ſtar is 2 degr. 20 min. above the Pole.

At the height of 70 degrees.

The Wayters in the
- Eaſt, the n ſtar is 2 degr. 5 min. under the Pole.
- North, the n.ſtar is 2 degr. 15 min. under the Pole.
- Weſt, the n ſtar is 32 min. above the Pole.
- South, the n.ſtar is 2 degr. 22 min. above the Pole.

At the height of 80 degrees.

The Wayters in the
- Eaſt, the n. ſtar is 2 degr. 33 min. under the Pole.
- North, the n.ſtar is 2 degr. 12 min. under the Pole.
- Weſt, the North-ſtar is 33 min. under the Pole.
- South, the North-ſtar is 2 degr. 44 min. higher then the Pole.

The uſe of the North-ſtarre, agreeing with the northermoſt hinder wheele of the Wagon.

At the height of 10 degrees.

When the northermoſt Wheele of the Wagon ſtandeth in the
- Eaſt, then is the n. ſt. higer then the Pole 1 d. 1. m.
- North, the n.ſtar is 2 degr. 27 min. above the Pole.
- Weſt, the n.ſt. is 1 deg. 13 m. lower then the Pole.
- South, the n. ſtar is 2 degr. 27 min. above the Pole.

At the height of 20 degrees.

The northern wheele of the Wagon
- Eaſt, the nord ſtar is 54 min. higher then the Pole.
- Nord, the n. ſtar is 2 degr. 27 min under the Pole.
- Weſt, the North-ſtar is 1 degree 19 min. lower then the Pole.
- South, the n.ſtar is 2 degr. 27 min. above the Pole.

At the height of 30 degrees.

The Northermoſt hinder-wheele of the Wagon
- Eaſt, the n. ſtar is 47 min. higher then the Pole.
- North, the n.ſtar is 2 deg. 27 min. under the Pole.
- Weſt, the n.ſtar is 2 degr. 26 min. above the Pole.
- South, the n.ſtar is 2 degr. 27 min. under the Pole.

At the height of 40 degrees.

The Northermoſt hinder wheele
- Eaſt, the North-ſtar is 38 min. above the Pole.
- North, the n.ſtar is 2 degr. 27 min. under the Pole.
- Weſt, the n.ſtar is 1 deg. 45 min. below the Pole.
- South, the n.ſtar is 2 deg. 28 min. above the Pole.

At the height of 50 degrees.

The Northermoſt Wheele
- Eaſt, the North-ſtar is 24 min. above the Pole.
- North, the n.ſtar is 2 deg. 26 min. under the Pole.
- Weſt, the n ſtar is 1 degr. 45 min. below the Pole.
- South, the n.ſtar is 2 degr. 28 min. above the pole.

At the height of 60 degrees.

The Northermoſt hinder-wheele
- Eaſt, the North-ſtar is 2 minutes above the pole.
- North, the n. ſtar is 2 deg. 26 min. under the pole.
- Weſt, the n. ſtar is 2 degr. 1 min. under the pole.
- South, the n ſtar is 2 deg. 28 min. above the pole.

At the height of 70 degrees.

The Northern hinder-wheele
- Eaſt, the North-ſtar is 41 minutes under the pole.
- North, the n. ſtar is 2 deg. 25 min. under the pole.
- Weſt, the n.ſtar is 2 degr. 22 min. under the pole.
- South, the n.ſtar is 2 degr. 29 min. above the pole.

At the heigt of 10 degrees the Northern hinder-wheele of the great Wagon cannot come from the Horizon at the ſame heigt with the North-Starre.

A Declaration of the Eaſt, Weſt, South and Northerne Wayters, and of the great Wagon.

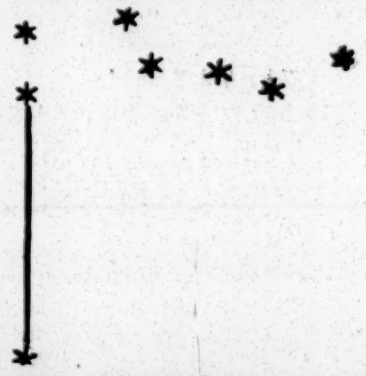
THE Wayters Eaſt, that is when the cleareſt or middlemoſt ſtandeth towards the Eaſt, and higher above the Wayters Horizon then the North-ſtarre.

The Wayters North, that is when the cleareſt rigt above the Northſtarre.

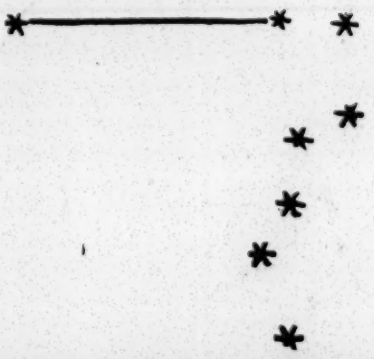
The Wayters Weſt, that is when the middlemoſt of the Wayters, ſtandeth towards the Weſt, and there with all one hig above the Horizon.

The Wayters South, that is when the cleareſt of them ſtandeth rigt under the North-ſtarre.

In the ſame manner as of the Wayters, ſo is alſo to bee underſtood. The Eaſt, Weſt, South and North of the Northermoſt hinder-wheele of the great Wagon thus.

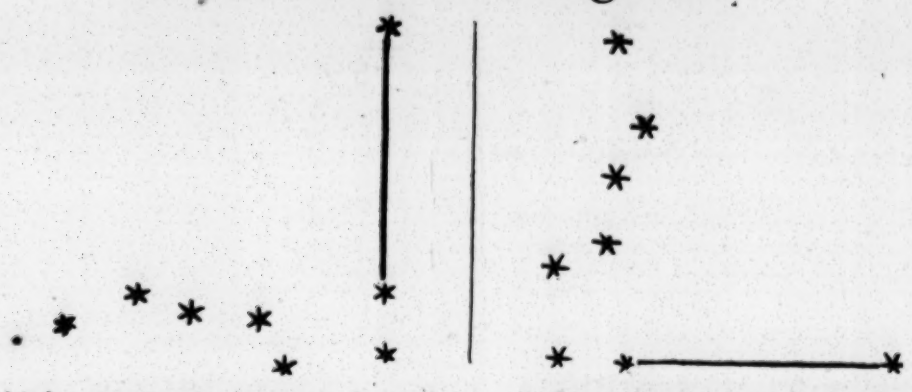


The Northermoſt hinder-wheele in the North, that is, when the ſame ſtandeth right above the North-ſtarre, according to explication in the firſt figure.



The Northermoſt hinder-wheele of the Wagon eaſt; is when as the ſame ſtandeth eaſtwards and high above the Horizon towards the North-Starre, as in this ſecond figure.

The



The ſame hinder-wheele of the Wagon in the ſouth is when it ſtands right over the Northſtarre even as in the third figure.

And in the Weſt, when it ſtandeth Weſtwards and high towards the Northſtarre above the Horizon, as is ſeene in the fourth Figure.

The uſe of the aforeſaid Tables.

YOu muſt ſtay till you have the cleareſt of the Wayters, or the northermoſt hinder-wheele of the greate Wagon, upon any of the foreſayd Points, then you take the height of the Northſtarre above the Horizon. The height beeing found with the queſſing together. You may then ſomething nearely know the height of the Pole. Then you can ſufficiently find out of the foreſayd Tables how much the Northſtarre is higer or lower then the Pole. It is higer, then you muſt ſubſtract from, but is it not lower you muſt adde that to the meaſured height, and ſo come to find the right height of the Pole.

Theſe foreſayd Tables are reckoned all from 10 degrees to 10, & when you are betweene ſuch heights ſo ſhall you (comming upon other heights) take notice, how many degrees you are either above or under theſe reckoned Poles. And there withall how greate the difference is between ſuch two, ſeeing wee find, that have obſerved it, you take from the difference according to the reaſon of the height where you are, leſſe or more from the foreſayd Numbers, addingh that to or ſubſtracting from, even as the cauſe requireth.

The firſt Example.

IN the heigt of 46 I deſire to know how much the Northſtarre ſtandeth lower then the Wayters ſtand in the eaſt, obſerving. How great the difference is betweene the height of 40 and 50 degrees, I find 5 minutes increaſing, I ſay therefore 10 degrees difference in height giveth 5 minutes, what amounteth 6 degrees to, facit 2 minutes, that beeing added by the one degree 39 minutes which I find on the Table over againſt 40 degrees becauſe the difference is increaſing from 40 towards 50 degrees, and ſo I finde it 1 degree 42 minutes.

The ſecond Example.

IN the height of 48 degrees, I deſire to know, how farre the Northſtarre ſtandeth to high, when the moſt northerly hinder-wheele of the Wagon ſtandeth Eaſt, the difference in the Table betweene 40 and 50 degrees height is 14 minutes leſſening, I ſay therefore if 10 degrees differ in height 14 minutes, what ſhall 8 degrees doe? facit full 11 minutes, theſe beeing ſubſtracted from 38 minutes ſtanding right againſt 40 degrees heigt, now becauſe that the difference of 40 to 50 degrees leſſeneth, I find 27 minutes which the Northſtarre ſtandeth to high upon the afore ſayd 48 degrees.

The 32. Point. Concerning the elevation of the heavenly Lights through the Damps.

THis knowne by experience that Sonne, Moone, and all the Starres approaching the Horizon, ſeeme alſo to bee more and more high then in truth, they are the cauſe whereof wee ſuppoſe to bee the damps, which continually, (throug the warmth of the waters and the earthly moiſtures) riſe from the earth, which how nearer they are to the Horizon are ſo much the thicker, and thereby the lights ſo much the more ſeeme to bee higher. The nearer you come to the Pole, ſo much the more damps, and thereby the elevation of the heavenly lights above their places are the greater. The famous Aſtronomer Tycho Brahæ hath by correct obſervation found it in his Clime in the latitude of 55 degrees 56 minutes even as theſe followingh Tables reach you.

The Table of the Sunnes Elevation.

The Sun high appeareth	0 degree	34 minutes	higher then it is really.
	1 degree	26 minutes	
	2 degrees	20 minutes	
	4 degrees	15 minutes	
	7 degrees	13 minutes	
	10 degrees	10 minutes	
	16 degrees	7 minutes	
	23 degrees	3 minutes	
	32 degrees	1 minut	

The Table of Starres Elevation.

The Stars hig appeare	0 degree	30 minutes	higher then they are indeed.
	1 degree	22 minutes	
	2 degrees	15 minutes	
	4 degrees	11 minutes	
	7 degrees	8 minutes	
	11 degrees	5 minutes	
	15 degrees	3 minutes	

The uſe of the foreſayd Tables of the Elevation.

IF you meaſure the Sonnes heigt above the Horizon leſſe then 32 degrees you muſt ſubſtract ſo much as the Table reacheth you on the number of the height you have found: If you meaſure the diſtance of the Sonne from the Zenith more then 58, on the contrary you ſhall adde as much to as the Table beſides the ſuppliment to 90 from the meaſured diſtance from the Zenith, reacheth. But the Sunne being more then 40 degrees above the Horizon and 50 degrees from the Zenith, theſe axaltations and elevations come to nothingh.

The firſt Example.

I meaſure the height of the Sunne above the Horizon 4 degrees, the Table of Elevations of the Sunne pointeth mee the Sunne to appeare 15 minutes higher then in truth it is, and draw then thoſe 15 minutes of from my meaſured height, and I doe keepe for the true height of the Sunne three degrees 45 minutes.

The ſecond Example.

I meaſure the diſtance of the Sunne from the Zenith 74 degrees, the ſuppliment thereof to 90 is 16 degrees thereby in the Table of the Sunne, I find 7 minutes which I adde to the diſtance I meaſured and to I find for the right diſtance 74 degrees 7 minutes.

Even as it is ſayd of the Sunne, according to the Tables of the Sunne, ſo muſt you alſo doe with the Starres accordingh to the Table of Starres.

The firſt Example.

I meaſure in the North upon the lowneſſe of the middlemoſt Horſe on the great Wagon 7 degrees above the Horizon, beſides that I find in the Table of Starres 8 minutes, which beeing ſubſtracted from the meaſured height, I detaine for the true height 6 degrees 52 minutes.

The ſecond Example.

I meaſure the diſtance from the Zenith of the Conſtellation which we call the greate Dogge 86 degrees the ſupplement thereof to 90 is 4 even beſides that I find in the Table 11 minutes, which beeing joyned by the diſtance you ſound, I find it 86 degrees 11 minutes.

The 33. Point. Of the CARD.

IT is knowne to every man, eſpecially to thoſe that underſtand te grounds of Coſmographie, that the earth with the waters make one compleate round body, & therefore it cannoth bee, that you ſhould ſet forth the ſame perfectly in a plane or Carde (either in the hole or in part) but there will bee ſomewhat, for it is unpoſſible to make a plaine agree with a round forme in all the parts thereof. So that your common Cardes many times ſayle in truth, eſpeciall thoſe that comprehend great and long voyages by Sea, and far from the Equinoctiall; but the Maps which are commonly uſed in this Countrey, of the Eaſterly and Weſterly Navigation, are without fault, or at leaſt the errots are ſo little that they hinder not.

They are very fit inſtruments to bee uſed at Sea, and our forefathers, which have invented them, have brought no ſmall profit and utiſity to Mariners. The fault of them conſiſts in this, & thus it may be ſeene: If you

would sayle a triangle, the two first sides will bee sayled on their strokes & distances; but from the two to the three place (that is the three side of the triangle) it will sayle both on the strokes and distances.

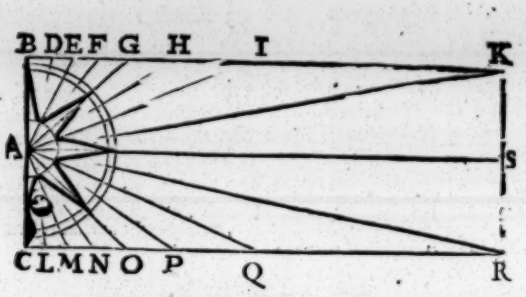
I. Example.

I sayle from the Lizard a Straigt course to the Ilands of Canary, and from thence againe to the Ilands of Corvo and Flores, on which foresaid strocks and distances many Maps are very complete and perfect. But if I would saile againe from Corvo to the Lizard, from whence I first sayled, the Card will shew mee an imperfect way, to witt, it wil seeme farther wide in the Card, then indeed it is, also it wil differ on the points of the Compasse: so that you must direct your course more northerly then that which your Card directeth.

In so short a journey, as this above said, it is not much observed, neither it is worth te observation: but those that sayl to the West-Indies, shal soone perceive it; when they set sayle, they take theyr course far to the south and there they finde theyr Cards of a fit length, because the Cards are fitted to it; But in theyr returne, when they take theyr course northward, they finde the way much shorter then theyr Cardes shew them.

This is the cause: All the lines in the Card from north & south are drawne every where at an equal distance each from other, from the Equinoctiall to the Pole, but on a Globe, which is made round like the Earth, they are not of an equal distance, but the more northerly they come, so much the nearer they come each to other. So that two strokes from north to south at the latitude of 60 degrees, are but halfe so wide from one another, as they are at the Equinoctiall, and at the Pole they touch each other. Therefore two shipps being under the Equinoctiall distant from one another 200 leagues, they may both sayle directly north without hinderdance, comming to the heigt of 60 degrees, but being 100 leagues from each other; and that following the same course, they would in the end meet each other under the Pole, but if you direct such two shipps by a playne Carde, they wil bee alway at equal distance, by which is sufficiently appeares, that all places lying far north, are much to wide, unlesse they bee drawne in, which cannot bee done, but you must make other places more faulty.

The 34 Point. How many miles or leagues you must sayle on every Point of the Compasse before you shall get a degree in breadth of the Land.



When you saile rigt south or rigt north on any one Point of the Compasse, as from A to B or C, you saile for a degree 15 leagues
And you stay under the same Meridiaen.
On the point north and by east, or south and by east, as from A to D or L, you saile for a degree 15½ league
And then you are out of the Meridiaen whence you sayled, as it where from B to D 3 leagues
North northeast and south southeast, as from A to E or M, for a degree 16 leagues
You are from the Meridiaen, whence you saile 6 leagues, as from B to E.
Northeast and by north, and southeast and by south you sayle as from A to F or N 12 leagues
You shall be without the same Line, as from B to F 10 leagues
Northeast and southeast, you saile for a degree, as from A to G or O 21 leagues
You are then of the north and south Line, whence you saile as it where from B to G or C O 15 leagues
Northeast and by east and southeast and by east, as from A to H or P for a degree 27 leagues
You are then out of the first Meridiaen, as from B to H, or C P 22 leagues
East northeast or east southeast, you saile for a degree, as from A to I or Q 39½ league
You shall bee out of the Meridian, as from B to I, or from C to Q 36 leagues
East and by north, or east and by south, as it where from A to K or R, you saile for a degree 77½ league
Then are you out of the Meridian, as from B to K, or from C to R 75 leagues
East or West, as from A to S, you remaine between the Pole and Equinoctiall on the selfe same breadth of the Earth or Land.

The 35 Point. Of variation of the Compasse, and how you shall find the turning a side of the needle or variation.

THE needle or the Stile under the Compasse, touched with the Loadstone, draweth to divers places diversely, in some places directly to the north, in other Places it wendeth to the east, and in other towards the west. As for Example: At the Islands of Corvo and Flores, the most westerne of the Flemish Islands. At Helmsmuy a little on the west-side of the North-Cape. About 30 leagues westwards from the South-Corner of Spitsburgh, on the east-side of the Cape of good Hope, at Cabo das Aguilhas, and at other places, as well in the East in the West-Indies, the needle directeth you must North. Westwards from the Flemmish Islands on the east-side of the Cape, at Nova Zembla, on the Coast of Spitsburgh, and on the east-side of Cape das Aguilhas on all the Indian Sea, it standeth from the North Westwards, and in the east-side of the Flemmish Islands, on the west-side of the Cabo de Bona Esperance and other places more, it standeth from the North Eastwards. The variation of the needle is two-fold, to witt, from the North to the West, and from the North to the East, and the South are againe of two sorts, the increasing and decreasing Westward, in like sort the increasing and decreasing Eastwards. The increasing Eastwards and Westward, is, as you saile from East to West, increasing and deminishing, that which decreaseth, may he plainely, understood by this Example.

I. Example.

IF you saile from the Islands Corvo and Flores, where the needle standeth rigt east ward on the coast of Spaine, the needle beginneth by little and little so much the more, to wind towards the east, untill you have sailed the Strait of Gibralter, where it is at the highest (as they hold) 13 degrees that is increasing northeastering.

From thence sailing alongst the Midlelands-Sea, it beginneth to decrease, untill you come at the place, called the Mouth or the Venetian Gulfe where it vanisheth, and the needle againe draweth directly north, this they call decreasing northeastering.

II. Example.

IF you sayle from the Cabo das Aguilhas (where the needle standeth directly north) eastwards to the Indies the needle beginneth to decline from the north towards the west until you come a little on the east-side of the Island S. Brandaon, where it is at the heigt of 22 degrees, or two whole strokes that is increasing northwestering.

Sailing from thence, you begin to decrease, till you are at the south-point of Celebes, where againe the needle draweth rigt, this is called decreasing northwestering.

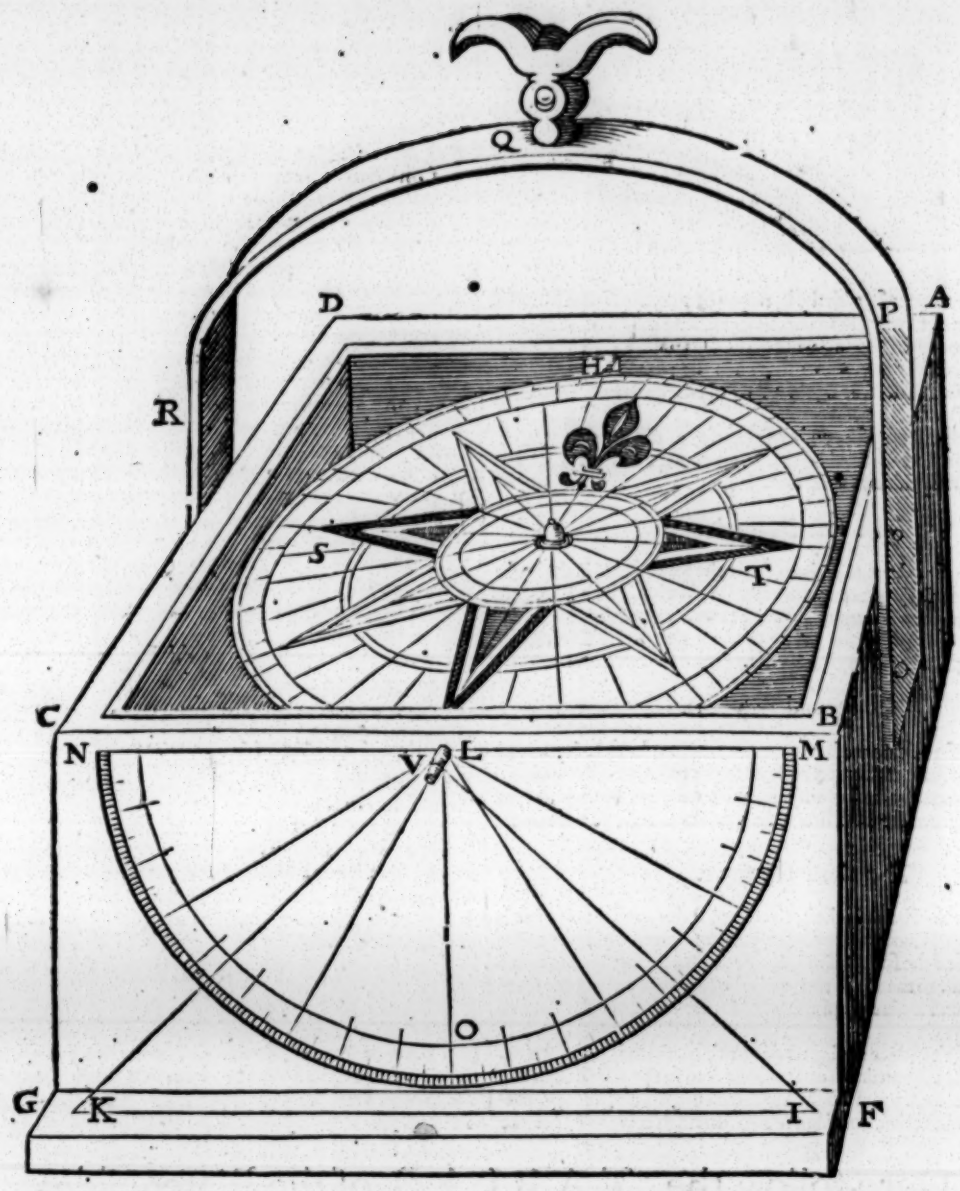
For the common Navigation from this Countrey to the East, North, England, France or Spaine the Stiles (to direct the Lilly rigt North) set fast under the Rose, about two third parts from the stroke, from the north to the east. The stretching and course of the one Countrey towards the other in the common Cards, are drawne by such a Compasse, so that you may sayle it without altering of the Compasse of shaking any other reckoning or account.

In great journiers, when the needle declineth sometime to the west, and sometime to the east, a stroke or two, or more, it is necessary to observe it sharply, over what side, and how much it standeth from the north, that you may bee certaine, what course you shall hold in sailing.

To find the declining of the Compasse, that is, how much the Lilly standeth to the east or to the west, seek first the just north (that by it you may know the declining) thus make a box quadrangle, or fourne cornered, and reasonable deep, as it followes A B C D E F G, in the midst of it under in a glasse let the Compasse swimme on a pinne, so that it bee round about at an equall distance from the box, as S T, devide that on the outermost corner of the Rose into foure times 19 degrees, and lay the needle just under it, even as in the Compasse that you follow in sailing. Within on the one side of the box, which wee call the north-side, make a sharpe coper or brasen corner or edge, just in the midst between A and D, lifted upon the side A D, so that the compasse may passe close by it without let, as H, without on the south-side B C F, at the under corner make a little beame, as F G, about halfe an inch broad at the upper-edge, in each side make a hole at I and K, both equally distant from the flat B C F G, at the under corner make a little beame, as F G, from the one to the other a rigt line which may bee plainly seene, as I K; at the upper-edge in the middest betweene B C, make a pinne as long as the underbeame, like L, and just so farre as the line I K on the beame standeth from the flat, just so far make from the flat a scoach in the foresaid pinne L, after that moke a string or a smooth cord fast to each end in the foresaid holes of the little beame as at I K, and with the midst of the foresaid pinne at V, so that the string being stretched hard, may stand at an equall distance from the flat in all places B C F G, from the point L make a halfe circle, a little lifted out of the flat, as M D N, so that the line M N be equally distant at all points with the upper-edge of the box, or the beame and the line L O (deviding the halfe circle into two quadrants) square rigt on I K, devide the halfe circle at the inner corner in twice ninety degrees.

Lastly, make a ring of brasse or wood as P Q R, that you may hang the box on it, that the uppermost flat A B C D may hang Water-compasse, the south-side B C F G, and the edges B F C G, and the Line L O just in the lead, this being thus preparated, the use followeth.

Three or foure houres before noone, more or lesse you shall turne the corner C G, towards the Sunne, so that the shaddow of the one side of the string L K may fall rigt along the line K I, and then looke the degree of the Compasse which commeth to stand by the brasen edge H, which I suppose to bee the 30 degrees of North and by West, as in the second Figure following at A. At the same instant, you shall observe the heigt of the Sunne at the shadow of the pinne L, in halfe circle M O N, or you shall take it more truely and certainly with the crosse staffe or Astrolabe, that which wee take here to bee 25 degrees, wee set it down for memories seke. Further you shall stay so long in the afternoone, untill the Sunne bee come to the same height of 25 degrees then turne the edge B F, just



just against the Sunne, so that the shadow of the side of the string L I may fall right along the line I K, and look what degree of the compasse commeth to stand by the coper or brasen edge H, which I suppose to bee the 30 degrees for the north, toward the east, as on B, this being so in the middest of the circle A B, as at C, is the north point which you desire, and if the Lilly bee directed right to it, then hath that compasse no variation, but directeth right north. But if your taking aforesayd in the afternoone bee

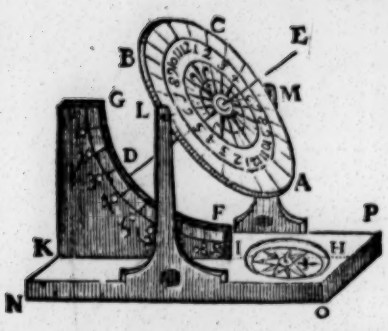


not found the thirtieth, but the fiftieth degree from the north towards the east, as at D, in such a cause you shall devide the circle A D, being 80 degrees at E, into two parts, so that A E and E D may each of them contayne 40 degrees which being so, E will bee the north point, and such a compasse turneth from the north to the west from E to C 10 degrees which is very neare a whole stroke. But if in the foresayd taking in the afternoone the coper or brasen edge hath stood 10 degrees on the West-side of the Lilly or flour deluce, as at F, then you must devide the circle A F, containingh 20 into two parts at G; so that A G and G F might each of them containe tenne degrees, which being so, G will be the north point, and the Lilly of such a compasse windeth toward the East from the North 20 degrees, namely from C to G, and thus it will bee in all other Figures. This is to bee observed: that you may take the heigt before the noon twice, thirce, foure times or more, at divers heights of the Sunne; As for Example: The first time when the Sunne is at the height of tenne degrees, the second time at the height 15 degrees, the third at 20 degrees, and in the afternoone at the same height and by comparingh the one takingh with the other, you shall finde how they agree each with other, thus finding allwayes the same north point, you shall bee certaine that you have taken it truly and right.

Of the Tydes.

IT is knowne to all experienced Mariners that the ebbingh and flowingh of the Sea is Governed by the Moone, so that every new and full Moone the waters are higer, which they call spring-tydes, and at the quarter of the Moon the waters are lowest: so that you may know and that certainly by former observation, (although the true and reall cause thereof is yet hidden from us) the houre of the tyde, and on what point or stroke the Moone maketh high water in any particular place, to the great profit and furtherance of Navigation.

To know on what stroke the Moone is, it may be done in a two-fold manner, by the sight; or by marking how old the Moone is; to looke at some stroke of the Compasse, it may not be done accordingh to the common compasse lying flatte or driving water Compasse, because the Horizon divideth only into equall strokes, & sheweth in what virticall circle Azimuth the Sunne or Moone standeth, but by a compasse that (being lifted up) according to the Superficiall part of the Equinoctiall, devideth the Equinoctiall in equall parts, as the common flat two driving doth the Horizon; such an Equinoctiall compasse is made in this manner as you see in this Figure: where the roundell A B C sheweth the flat of the Equinoctiall, the gnomen E D the axeltree of the World. The foresayd roundell in B marked on both sides, in the inside with the Compasse, and on the edge of the out side with twice 24 houres and in the east and west at L and M hanging on two pinnes at it were on an axeltree, so that these being turned up and downe, and the gnomen set and the nether end by D and by the Quadrant F D G, that you may place him at the height of any Pole.



If you ſet ſuch a compaſſe with the bottom water compaſſe, the Line HK juſt north and ſouth, to witt, H to the north and K to the ſouth, and the lower end of the gnomen by ſuch a degree of the Quadrant FC, according to the heigt of the Pole where you are: there will the roundell ABC, ſtand even with the ſurface of the true Equinoctial, and the gnomen ED with the axeltree of the World.

The ſigt on ſuch a Compaſſe, and a common one, different very much, and by how much nearer the Equinoctiall ſo much more will the difference bee, as will appeare by this example following.

The firſt Example.

ON the heigt of 50 degrees or rhere about, the Sunne being in the beginning of Cancer in the greateſt northerly Declination, it is on a common Compaſſe eaſt at halfe an houre paſt ſeven, and weſt at halfe an houre paſt foure, that is: he goeth from the eaſt to the weſt throug the ſouth in nine houres, but from the weſt throug the north to the eaſt in 15 houres.

The ſecond Example.

AT the heigt of 30 degrees, hee comes little before halfe an houre paſt nine at the eaſt, and a little after halfe an houre paſt two to the weſt, and ſo it goeth in leſſe then five houres and a halfe from the eaſt throug the ſoud into the weſt, but from the weſt throug the north to the eaſt be goeth more then 18 houres.

The third Example.

THE Dragonſhead being in the beginning of Aries, and the Moone in the beginning of Cancer, they make 5 degrees more declination than the Sunne, and go to the foreſayd height of 30 degrees more then an houre ſooner from the eaſt to the weſt, then the Sunne, to witt, about the ſpace of foure houres, and againe from the weſt to the eaſt about the ſpace of 2 houres.

Under the line, the Sunne having no declination, riſeth in the morning, in the eaſt, and riſingh remaineth eaſt untill he commeth to the Zenith and paſſeth that to the weſt, and abideth ſo deſcendingh weſt, till he aproacheth the Horizon and is accordingh to a flat drivingh compaſſe, the one halfe of the day eaſt, and the other weſt, without comming on any other ſtroke; but it is not ſo on ſuch an Equinoctiall compaſſe. The Sunne and Moone both going alwayes in the ſame diſtance of time over every ſtroke, to with, from the eaſt to the ſouth in ſix houres, and from the ſouth to the weſt in ſix houres, and againe from the weſt through the north in twice ſix houres.

The firſt Example.

UNder the Line, the Sunne being in the Equinoctiall, I ſet the end of the gnomen E directly north, the other end D to the ſouth at the upperedge of the Quadrant at G on O, the gnomen ED ſhall lye water Compaſſe, like the axeltree of the World, and the roundell right in the lead upright like the true Equinoctiall there. The Sun commingh above the Horizon, the ſhaddow of the gnomen ſhall direct you to the ſixt houre in the eaſt, for the riſing, but if hee riſe be yond the edge of the roundell, and devideth that in the ſame time into equall parts with the ſhaddow, being 45 degrees above the Horizon, the ſhaddow of the gnomen will direct you to the 9 houres in the ſouth, being come into the Zenith, the ſhaddow ſhall fall juſt on the lead at the twelfth houres in the ſouth, againe 45 degrees, that is, deſcending halfe way the weſt, the ſhadow ſhall be at the third houre in the afternoone in the ſouthweſt, but coming to the Horizon the ſhaddow ſhall fall on the ſixt houre in the weſt.

As this is ſpoken of the Sun, the ſame muſt bee underſtood of the Moone in as much as concerneth the points or ſtrokes af the Compaſſe.

To reckon by the age of the Moone, wee have ſet in the Table following under every ſtroke two Rankes of Ciphers, the firſt are the dayes of the age of the Moone, or the dayes paſt ſince the Moone was new or at the full. The ſecond the houres and minutes of thoſe dayes, in the which the Moone comes to ſuch a ſtroke, and maketh at the place ſtandingh by high water.

The ſecond Example.

EIght dayes after the Moon hath beene new or at the full, I deſire to know when the Moone commeth to the ſouth, at Embden, or Enckhuyſen, and ſuch like places, makes high water (for there a north and a ſouth Moone makes full Sea) I ſeek under the north and ſouth ſtroke the 8 day in the firſt columne, and by that in the ſecond 6 houres 24 minutes on that then ſhall the Moone come to the north and ſouth at 6 houres 24 minutes and make high water in that place.

The tyde 48 minutes later every day, that is foure or five parts of an houre, then if you know at what houre the new or full Moone make high water in any one place, you ſhall reckon from that firſt day every day 4 or 5 parts of an houre later, and ſo you ſhall find the juſt time of high water or full Sea in that place.

The third Example.

When the Moone is new or full, then it is at Amſterdam and Rotterdam (and where ſoever a ſouthweſt and northeaſt Moone maketh full Sea) high water at three of the Klocke, a day after the new or full Moone at three of the clocke 24 minutes, two dayes after at foure of the clocke and 36 minutes and foure dayes after the new or full Moon at ſix of the klocke 12 minutes.

Here follow the TABLES of the Water-tijdes.

South, and North.

da.	ho.	mi.	
0	12	0	At the Juttiſh Iſlands.
1	12	48	Before the Hever, Eyder, &
2	1	36	Elve, before Embden & Del-
3	2	24	feziel. Before Enckhuyſen,
4	3	12	Horn and Urck, upon all the
5	4	0	coaſts of Vlanders, upon the
6	4	48	Foreland. At Dover in the
7	5	36	Pier, at Beveſier on the ſand,
8	6	24	at Hanton on the Kay, Be-
9	7	12	fore Schierenburch and the
10	8	0	Ras of Blanckert.
11	8	48	At Olfernes.
12	9	36	In the Conduit.
13	10	24	At Jubleter in the Road.
14	11	12	
15	12	0	

Falling of ſtreames upon the ſame ſtroke.

From the Neſſe to Beunen.

S.S.W. and North Northeaſt.

da.	ho.	mi.	
0	12	45	Within the Maſe.
1	1	33	Within the Veer.
2	2	21	At Fluſhing.
3	3	9	Neare Beveſier in Sea.
4	3	57	In the Chamber.
5	4	45	In Charmſey.
6	5	33	
7	6	21	
8	7	9	
9	7	57	
10	8	45	
11	9	33	
12	10	21	
13	11	9	
14	11	57	
15	12	45	

Falling of ſtreames upon the ſame ſtroke.

From Beunen to the Sont. Alſo from Eſtaple to Beunen.

South & by Weſt, & North & by Eaſt.

da.	ho.	mi.	
0	1	30	Under the Holy Land.
1	2	18	Before the Maſe & Goeree.
2	3	6	Before the Veere.
3	3	54	At Armewe. Upon the flat
4	4	42	before Rammekens. Before
5	5	30	the Wielings. On the Sea-
6	6	18	land Coaſts. Before the
7	7	6	Thames of London.
8	7	54	Before Yarmouth.
9	8	42	In Duyns on the Road.
10	9	30	Neare the Cingle.
11	10	18	On the Weſt-end of Wigt.
12	11	6	Without Callice and Swar-
13	11	54	tenes. In Blavet.
14	12	42	Bulline at the Land.
15	1	30	

Falling of ſtreames upon the ſame ſtroke.

From the Grevelingen to Beunen.

Southweſt by South, & Nordeaſt by North.

da.	ho	mi.	
0	2	15	Without Fontenay.
1	3	3	Without Blavet.
2	3	51	Under Bulline.
3	4	39	Before the Wieling.
4	5	27	Before the Maſe.
5	6	15	
6	7	3	
7	7	51	
8	8	39	
9	9	27	
10	10	15	
11	11	3	
12	11	51	
13	12	39	
14	1	27	
15	2	15	

Falling of ſtreams upon the ſame ſtroke.

A midſt throug the heads From Duynkerck to Greveling from Staples to Fecam. From Dortmouth to Exmouth.

Southweſt and North.

da.	ho.	mi.	
0	3	0	At Amſterdam, Rotterdam,
1	3	48	Dort and Zierick ſea. Before
2	4	36	Newcaſtle, the Theſe, & Hai-
3	5	24	re poole. In Robinhoods-bay
4	6	12	without the Fleminſh Bankes.
5	7	0	In the pas of Calice. Before
6	7	48	Conquet at peimarques groy
7	8	36	Armentiers, Heys, Kiliaets.
8	9	24	Portus, the river of Bordeux.
9	10	12	On al the ſouthcoaſts of Bri-
10	11	0	taigne, Gaſcoigne, Poictu. On
11	11	48	all Coaſts of Biſcaye, Galiſ-
12	12	36	ſien, Portugale & Spanie. On
13	1	24	the Weſt-coaſts of Ireland,
14	2	12	at Bokenes or Orkeneſſe. In
15	3	0	Hitland and Fachill.

Falling of ſtreams upon the ſame ſtroke.

From Caep de Hague to the Iſland of Ornay. From Garnſey to Caquer, from Milford to Ramſey. At ſawike in the channel. At Portland in the ſack.

Southweſt by Weſt, & Northeaſt by Eaſt.

da.	ho	mi.	
0	3	45	Between the pas of Calice
1	4	33	and the Maſe at Roan. In the
2	5	21	Sorlis, before S Matthews-
3	6	9	point. In Briſtow and Crix-
4	6	57	down. In the forde betweene
5	7	45	Heyſant. Before the Bos, at
6	8	33	S. Marten. Before Rochel,
7	9	21	before Brouwage, at Rouan.
8	10	9	In the River of Bordeaux,
9	10	57	within the channells ſituated
10	11	45	on the coaſts of Spain, Galiſ-
11	12	33	ſien, the ſouth-ſide of Bre-
12	1	21	taigne, Gaſcoigne, and the
13	2	9	weſt-coaſt of Ireland.
14	2	57	
15	3	45	

Falling of ſtreames upon the ſame ſtroke.

From Struſaert, to Deepe. From Lezart to Start. From C. le Clare to London.

West Southwest, and East Northeast.

da.	ho	mi		Falling of streams.
0	4	30	From Texel to the pas of Calice in the fareway. Before Humber, before Flamborough and Scherenbrough Abruac. In Famouth, in the Mouſchole, Seven Ilands, S. Pauls with out the Haven, Betweene Garnſey and the ſept Iſles in the farewater. In the Breefand, without the foure. All South coaſts of Ireland, as Kinſael, Corke, Jochel, Waterfoord, and Cape de Cleare.	
1	5	18		
2	6	6		
3	6	54		
4	7	42		
5	8	30		
6	9	18		
7	10	6		
8	10	54		
9	11	42		
10	12	30		
11	1	18		
12	2	6		
13	2	54		
14	3	42		
15	4	30		

From Oſtend to S. Catlines from Berchfleur ro Stauſaert, the Breſand out & in From C. de Cleare to the Hand Saltees betweenLondon and Holmes ſo far as Briſtow from Sorlinghs to Englands end From Startpoint to Portland.

West by South, and East by North.

da.	ho	mi		Falling of streams upon the ſame ſtroke.
0	5	15	In Torbay and Dartmouth.	
1	6	3	In Plimmouth and Fawijke.	
2	6	51	In the Sea of Galles.	
3	7	39	In Famouth.	
4	8	27	In Milford.	
5	9	15	At Ramſey in Wales:	
6	10	3	Before Lin in England.	
7	10	51	Againſt London.	
8	11	39	In all havens on the South-coaſts of Ireland.	
9	12	27		
10	1	15		
11	2	3		
12	2	51		
13	3	39		
14	4	27		
15	5	15		

From Iſle bas to the foure. From Dorſey to C. de Cleare. From to Zorlis to Lizard. From Portland to Wicht. From Wicht to Beachy or Beveſier.

West and East.

da.	ho	mi		Falling of ſtreames upon the ſame ſtroke.
0	6	0	Before Hamburgh.	
1	6	48	Before Bremen.	
2	7	36	Before the Maerſdeep or Teſſel.	
3	8	24		
4	9	12	At Hull.	
5	10	0	At Blakney and Wels.	
6	10	48	Before Antwerpe.	
7	11	36	Tergoes.	
8	12	24	Tergouwe.	
9	1	12	At Concallo and S. Malo.	
10	2	0	S. Pauls in the haven.	
11	2	48	Without the Surlis in the channell.	
12	3	36		
13	4	24		
14	5	12		
15	6	0		

From the Kiſcaſſes to Berchfleur. From Englands-end to Lizard.

West & by North, and East & by South.

da.	ho	mi		Falling of ſtreames upon the ſame ſtroke.
0	6	45	Betweene Fawijck and Famouth in the channell.	
1	7	33		
2	8	21	Amidſt in the channell.	
3	9	9	At Briſtow at the Key.	
4	9	57	Before S. Nicolaes and Podeſſemske.	
5	10	45		
6	11	33		
7	12	21		
8	1	9		
9	1	57		
10	2	45		
11	3	33		
12	4	21		
13	5	9		
14	5	57		
15	6	45		

From the Iland Bas to Marwanen alongh the land.

W. n. w. and East Southeaſt.

da.	ho	mi		Falling of ſtreames upon the ſame ſtroke.
0	7	30	At the Neſſe by Wieringen, in Texel in the coopvaerders Roade.	
1	8	18		
2	9	6		
3	9	54	At Kilduyn.	
4	10	42	In the middle of the channel in the Fareway.	
5	11	30		
6	12	18	Neare Goutſtert in the channell.	
7	1	6		
8	1	54	And betweene Mouſchole and Famouth in the Sea.	
9	2	42		
10	3	30	Neare Plymouth in the Sea	
11	4	18	At Lizart by the Land.	
12	5	6		
13	5	54		
14	6	42		
15	7	30		

From the Iland Briack to S. Malo. From Bergfleur to Seynhead.

N.w. by West, & Southeaſt by East.

da.	ho	mi		Falling of ſtreames upon the ſame ſtroke.
0	8	15	Without the Kiſcaſſes in the channell.	
1	9	3		
2	9	51	By Wight in the channell.	
3	10	39	From Wight to Beviſier by the Land.	
4	11	27		
5	12	15	Upon the Weſt coaſt of the Foreland.	
6	1	3		
7	1	51	Without the Flye.	
8	2	39		
9	3	27		
10	4	15		
11	5	3		
12	5	51		
13	6	39		
14	7	27		
15	8	15		

Behinde Garnſey in the farewater. Within the ſeven Ilands.

Northweſt, and Southeaſt.

da.	ho	mi		Falling of ſtreames upon the ſame ſtroke.
0	9	0	Before the eaſt & weſt Eemſes.	
1	9	48		
2	10	36	Before the Flye.	
3	11	24	Before the Scholbalgh.	
4	12	12	On all the Freeſe coaſts.	
5	1	0	Upon the Freaſe and Wieringer Flack.	
6	1	48		
7	2	36	Before Crammer, Winterduyn and Yarmouth.	
8	3	24		
9	4	12	Within the Seyn.	
10	5	0	At the eaſt-end of Wight.	
11	5	48	In the Raſſe of Portland.	
12	6	36	Betweene Garnſey and the Kiſcaſſes.	
13	7	24		
14	8	12		
15	9	0		

In the wyke of Benyte. Betwoene Morlaix and the Treaclepots.

N. W. by North, and S. E. by South.

da.	ho	mi		Falling of ſtreames upon the ſame ſtroke.
0	9	45	The Needles of Wight.	
1	10	33	In the Channell by Wight.	
2	11	21	The Kiſcaſſes.	
3	12	9	At Garnſey in the Channel.	
4	12	57	Neare Leyſtaff & Yarmouth without the Banks.	
5	1	45		
6	2	33	At Tergouwe.	
7	3	21	At the Wolfs-horne.	
8	4	9		
9	4	57		
10	5	45		
11	6	33		
12	7	21		
13	8	9		
14	8	57		
15	9	45		

Before Concallo before the Iſland of S. Michaël in the Creek.

Northweſt and South Southeaſt.

da.	ho	mi		Falling of ſtreames upon the ſame ſtroke.
0	10	30	At Olferſnes and Harwidge without the bancks.	
1	11	18		
2	12	6	At Leyſtaff in the Roade.	
3	12	54	Yarmouth in the Road.	
4	1	42	Before the Thames of London.	
5	2	30		
6	3	18	At Margat.	
7	4	6	At Wight within.	
8	4	54	At Beunen Deepe and Seynhead.	
9	5	42		
10	6	30	In the Foſſe of Caen.	
11	7	18	At Struyſaert, & al the coaſts of Normandy & Picardy.	
12	8	6		
13	8	54	At S. Helena & Calveroort.	
14	9	42		
15	10	30		

From Bergflor to Alonga. From C. Dorſi to the Iland Dardan.

North and by Weſt, and South and by Eaſt.

da.	ho	mi		Falling of ſtreames upon the ſame ſtroke.
0	11	15	Betweene Cripple-ſand and the Kreyl.	
1	12	3		
2	12	51	Within at Olferſnes.	
3	1	39	At Hampton.	
4	2	27	At Portsmouth, and at Wolfers horne.	
5	3	15		
6	4	3	At Calveroort in Wight.	
7	4	51	Before the haven of Caen.	
8	5	39	Within the Thames of London.	
9	6	27		
10	7	15		
11	8	3		
12	8	51		
13	9	39		
14	10	27		
15	11	15		

From Sint Mathewes point unto Backovens from Fontenay to S. Matthewespoint.

Example.

I Deſire to know the Golden number of the yeare 1665 ſetting the 1500 a ſide, I devide the 165 yeares by 19, I find ſeven times, and the remainder is 12. Then the Golden number of the yeare 1665 is 13.

The Golden number increaſeth every yeare with the beginning of the yeare with one, as in the yeare 1664 it is 12. 1665 it is 13, and ſo forth to 19, after that againe 1, 2, 3, &c. The Epact changeth every yeare on the firſt of March increaſing with 11 to 30, but being more then 30, you muſt leave that 30, and the remainder is the Epact, You ſhall finde it by the Golden number thus: Tell the Golden number on the three joynts of your thumme, beginning with one at the lower joynts, unto the Golden number of your yeare propoſed, if it doth end this kind of the telling at the lower joynt, then the Epact and the Golden number are all one: But if it end on the ſecond joynt adde 10, if on the third joynt, adde 20 by the ſame Golden number, that number is the Epact of that yeare.

The 37 Point. How to finde the age of the Moone.

TO doe this without an Almanack, you muſt know the Epact or Key of the yeare, and that you ſhall finde by the Golden number, and the Golden Number thus: looke how many years there are paſt from the yeare of our Lord, 1500 and theſe divide by 19 and what remains is the Golden number of that yeare, if there remaine nothing, the Golden number is 19.

Example.

I Deſire to know the Epact of the yeare 1665 the Golden number is 13, telling on the joynts of the thumme beginning with one at the lower joynt, the telling endeth with 13 on the higheſt joynt, adding 20 to 12 you ſhall have 32 ſubſtract 30, there remaines 2 for the Epact of that yeare.

After the Old-Stile the Golden number is the ſelfe ſame with the New-Stile, but the Epact is 10 more, therefore if you adde 10 to the Epact of the Old-Stile, as for the yeare 1665, 13, to 12 (the Epact of the New-Stile) comes 23, this is the Epact of that yeare according to the Old-Stile.

But to find the Epact with out tellingh, is the Golden number to know both according to the Old & New-Stile, look on this Table following, where they are ſet the one by the other.

Golden

Golden Number.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
New Epact.	1	12	23	4	15	26	7	18	29	10	21	2	13	24	5	16	27	8	19
Old Epact.	11	22	3	14	25	6	17	18	9	20	1	12	23	4	15	26	7	18	29

The Epact being known, you ſhall adde it to the Number of the Moneths that are paſt from March to the Moneth you are in the ſame Moneth being reckoned with it, if this bring forth 30, then is it New Moon the firſt day of the ſame Moneth, but as much as it wanteth of 30, ſo many dayes you have to the New Moon.

Example.

In the Jear 1663 I deſire to know when the Moon ſhall be New the Moneth of Auguſt, the Number of the Moneths ſince March (the Moneth of Auguſt being included) it makes 27, there wants 3 to marke it 30, the Moone then ſhall be New 3 dayes after (namely the 3 of Auguſt.)

The Epact, the Number of the Moneth ſince March, and the day of the Moneth being added, ſuch a number (or whatſoever it brings forth more then 30) ſheweth the age of the Moon.

Example.

To know the age of the Moon on the 12 of Auguſt, 1665, I adde the Epact 13 to 6, the Moneths paſt ad 12 for the 12 dayes, they make together 31, whereof ſubſtract 30, remains 1, for the age of the Moon. This is to be underſtood after the New-Stile.

To finde out eaſily without caſting up the time of the New Moon, we have here adjoyned and Almanack for 12 Jears next enſuing, calculated by the Meridian of Amſterdam, ſhewingh the day and houre of every new and full Moon, together with the quarters. The uſe of it is thus: By the Moon in every Moneth there are two columnes of ciphers, the firſt ſheweth the day of the Moneth, the ſecond the houres and minutes of the new and full Moon, to reckon from the noone of the ſame day, to the noone of the day following, according to the uſe and cuſtome of the Aſtronomers.

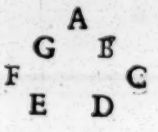
Example.

I would know in the Jear 1676, in the Moneth of September, on what day and houre the Moon will be new, ſeke therefore in that Jeare the Monet September, and I finde the new Moon on the 7 day, 12 houres 50 minutes, tellingh from noone tyde 12 houres 50 minutes, this runs to the next day enſuing in the morning, being the 7 at 8 a klock, 50 minutes after midnigt.

To know wat day of the week that will be, you muſt firſt know the Dominicall Letter of that Jear, & with what Letter each Moneth beginneth, the Sundayes Letter you ſhall finde under the Almanack of each Jear: The Leap-Jear hath two, the firſt you ſhall uſe to the 25 of Februarie, the other to the end of the Jear, every Moneth beginneth with ſuch a Letter as this Table following ſheweth.

Januarie, Februarie, March	begins with	A, D, D	April, May, June	begins with	G, B, E
July, Auguſt, Septemb.	begins with	G, C, F	October, November, December	begins with	A, D, F

For as much a September beginneth with F, begin to tell in the Cickel Letters here under with F, and then proced to tell forward to 9, which falls out in G, and ſeing the Dominicall Letter of this Jear, is D, you may tell from D to G, D on Sunday, E on Munday, &c. and G on the Wedneſday and ſo wit all the reſt. In the Leap-Jear you muſt tell both the 24 and 25 on F, becauſe the 25 and 24 day where added on F.



ALMANACK.

Almanack for the Jear 1676. New-Stile.

	Moon.	da.	ur.	mi.
	last quart	7	23	17
	new moon	14	17	10
January.	first quart	22	9	29
	full moon	30	7	30
	last quart	6	6	34
	new moon	13	7	11
Februar.	first quart	21	5	21
	full moon	28	20	40
	last quart	6	13	30
	new moon	13	22	39
March.	first quart	22	1	15
	full moon	29	7	6
	last quart	4	21	22
	new moon	12	14	39
April.	first quar	20	17	36
	full moon	27	14	49
	last quart	4	7	12
	new moon	12	6	49
May.	first quart	20	6	37
	full moo	26	22	49
	last quart	2	19	0
	new moon	10	21	46
June.	first quart	18	15	0
	full moon	25	5	58
	last quart	2	9	8
	new moon	10	12	3
July.	first quart	17	22	45
	full moon	24	14	14
	last quart	1	1	5
	new moon	9	1	9
Auguſt.	first quart	16	3	30
	full moon	22	23	34
	last quart	30	18	42
	new moon	7	12	50
Septem.	first quart	14	8	20
	full moon	21	12	4
	last quart	29	13	6
	new moon	6	23	48
Octob.	first quart	13	14	47
	full moon	21	3	2
	last quart	29	7	21
	new moon	5	10	11
Novem.	first quart	12	0	48
	full moon	19	21	16
	last quart	28	0	44
	new moon	4	9	53
Decem.	last quart	11	14	36
	full moon	19	16	37
	last quart	27	15	24

The Golden Number is 5, the Epact is 15, the Romane Indict 14, Sundayes letters E, D, after-winter 6 weekes and four dayes, Quinquageſima the 15 Febr. Eaſterday the 5 April, Aſcenſion the 14 May, Whitſunday the 24 of May, Advent the 2 November. In this yeare are 3 Eclipſes, 2 in the Sun, and one in the Moon, the firſt in the Sun the 11 Iune, at 9 and 48 min. in the evening, and will laſt 2 hours and 33 min. 54 ſecunds, the ſecond in the Moon the 25 Iune in the eveningh, at 6 a clock. The third in the Sun the 5 December, in the morning 24 min. paſt 8, both of the Sun may bee ſeene by us.

Almanack for the Jear 1677. New-Stile.

	Moon.	da.	ur.	mi.
	new moon	3	6	47
	first quart	10	7	29
January.	full moon	18	11	49
	last quart	26	3	11
	new moon	1	17	52
	first quart	9	2	35
Februar.	full moon	17	5	9
	last quart	24	11	43
	new moon	3	5	50
	first quart	10	22	23
March.	full moon	19	19	40
	last quart	25	17	51
	new moon	1	18	42
	first quart	9	18	31
April.	full moon	17	7	2
	last quart	23	23	2
	new moon	1	8	25
	first quart	9	10	42
May.	full moon	16	15	57
	last quart	23	5	52
	new moon	30	23	6
	first quart	8	1	41
June.	full moon	14	23	17
	last quart	21	14	43
	new moon	29	13	47
	first quart	7	13	50
July.	full moon	14	6	2
	last quart	21	2	18
	new moon	29	4	7
	first quart	5	23	28
Auguſt.	full moon	12	11	54
	last quart	19	16	54
	new moon	27	19	37
	first quart	4	4	44
Septem.	full moon	10	22	9
	last quart	18	10	15
	new moon	26	9	50
	first quart	3	12	29
Octob.	full moon	10	9	16
	last quart	18	5	9
	new moon	25	23	14
	first quart	1	18	23
Novem.	full moon	8	23	21
	last quar	17	0	55
	new moon	24	11	37
	first quart	1	2	44
Decem.	full moon	8	14	18
	last quar	16	18	58
	new moon	23	22	40
	first quart	30	13	55

The Golden Number is 6, the Epact 26, the Romane Indict 15, the Sundays letter is C, after winter 9 weekes 2 dayes, Quinquageſima the 26 Febr. Eaſterday the 18 April, Aſcenſion the 27 May, Whitſunday the 6 June, Advent the 28 Novem. This yeare are to bee ſeen 3 Eclipſes, two in the Sun, and one in the Moon, and none to be ſeene by us, the firſt in the moon 17 May, in the morning 57 minu. paſt 3 a clock, and ſhall laſt but three houres and 26 ſecunds, the bignes 8¼ inch, and ſhall be at that tyme 26 degrees 43 minut. in Scorpio, the ſecond in the Sun 31 May, about midnight. the third in the Sun 24 Novem. 37 minutes paſt 11 a clock.

Almanack for the Jear 1678. New-Stile.

	Moon.	da.	ur.	mi.
	full moon	7	11	28
	last quart	15	14	16
January.	new moon	22	5	53
	first quart	29	4	8
	full moon	6	6	46
	last quart	14	4	54
Februar.	new moon	10	19	24
	first quart	27	20	30
	full moon	8	0	50
	last quart	15	15	5
March.	new moon	22	5	56
	first quart	29	13	6
	full moon	6	16	23
	last quart	13	22	4
April.	new moon	20	16	0
	first quart	28	8	40
	full moon	6	5	2
	last quart	21	2	34
May.	new moon	20	3	22
	first quart	28	1	1
	full moon	4	15	13
	last quart	11	6	54
June.	new moon	18	15	57
	first quart	26	18	16
	full moon	3	23	12
	last quart	10	13	7
July.	new moon	18	7	58
	first quart	26	8	50
	full moon	2	6	34
	last quart	8	21	57
Auguſt.	new moon	16	21	3
	first quart	24	21	29
	full moon	31	13	58
	last quart	7	10	34
Septem.	new moon	15	13	13
	first quart	23	8	2
	full moon	29	22	24
	last quart	7	2	18
Octob.	new moon	15	5	39
	first quart	23	16	36
	full moon	29	8	40
	last quart	5	21	24
Novem.	new moon	13	21	34
	first quart	20	23	52
	full moon	27	21	25
	last quart	5	18	8
Decem.	new moon	13	11	56
	first quart	20	7	11
	full moon	27	12	57

The Golden Nomber and the Epact is 7, the Romane Indict 1, the Sundayes-letter is B, after-winter 8 weekes 1 days, Quinquageſima the 20 Febr. Eaſterday the 10 April, Aſcenſion the 19 May, Whitſunday 29 May, Advent the 27 November. This yeare are two great Eclipſes in the Moon, and none in the Sun, the firſt in the Moon the 6 May 2 minut. paſt 5 a clock, after noone in the ſleday tijms, therefore not ſeene by us. The ſecond is one the 29 October, in the eveninge at 8 a clock, 49 min. 20 ſecunds, and ſhall laſt 3 houres 48 minutes 4 ſecunds, the bignes in 9 makes, and may be ſeen by us.

Almanack for the Jear 1679. New-Stile.

	Moon.	da.	ur.	mi.
	last quart	4	15	5
	new moon	12	0	49
January.	first quart	18	15	52
	full moon	26	6	33
	last quart	3	10	30
	new moon	10	11	42
Februar.	first quart	17	2	58
	full moon	25	1	0
	last quart	5	2	58
	new moon	11	21	20
March.	first quart	18	16	19
	full moon	26	16	40
	last quart	3	15	47
	new moon	10	6	4
April.	first quart	17	7	28
	full moon	25	9	1
	last quart	3	0	29
	new moon	9	13	56
May.	first quart	16	23	36
	full moon	25	0	55
	last quart	1	5	20
	new moon	7	23	57
June.	first quart	15	16	30
	full moon	23	12	44
	last quar.	30	9	40
	new moon	7	10	31
July.	first quart	15	9	23
	full moon	22	22	28
	last quart	29	13	44
	new moon	5	23	3
Auguſt.	first quart	14	1	39
	full moon	21	6	47
	last quart	27	20	35
	new moon	4	13	46
Septem.	first quart	12	17	24
	full moon	19	15	7
	last quart	26	6	49
	new moon	4	6	27
Octob.	first quart	12	7	11
	full moon	18	23	48
	last quart	25	21	11
	new moon	3	4	3
Novem.	first quart	10	19	10
	full moon	17	9	42
	last quart	24	14	52
	new moon	2	16	15
Decem.	first quart	10	4	45
	full moon	16	21	41
	last quart	24	11	7

The Golden Number is 8, the Epact 18, the Romane Indict 2, the Sundays letter A, the afterwinder 7 weekes, Quinquageſi. 12 Febr. Eaſterday the 2 April, Aſcenſion the 11 May, Whitſunday the 21 May, advent the 3 December. This year are to bee ſeen four Eclipſes, namely two in the Sun, and two in the Moon, the firſt in the Sun the 10 April, at 6 houres in the evening, the ſecund in the Moon, the 25 April, in the evening one min. paſte 9 a clock, & ſhall laſt from the beginninge two houres 14 min. 42 ſecund, the third in the Sun the 4 October, 27 min. paſte 6 at night, the fourth in the Moon the 19 October, about noone only the firſt in the Moon may bee ſeene by us.

ALMANACK.

Almanack for the Jear 1680. New-Stile.

	Moon.	da.	ur.	mi.
	new moon	1	10	58
	first quart	8	12	52
January.	full moon	15	10	38
	last quart	23	7	35
	new moon	31	1	31
	first quart	6	19	49
Februar.	full moon	14	2	33
	last quart	22	4	30
	new moon	29	13	29
	first quart	7	4	8
March.	full moon	14	19	11
	last quart	22	22	27
	new moon	29	22	52
	first quart	5	11	58
April.	full moon	13	11	57
	last quar	21	13	26
	new moon	28	6	49
	first quart	5	1	57
May.	full moon	13	3	41
	last quar	19	0	17
	new moon	27	14	22
	first quart	3	15	31
June.	full moon	11	18	45
	last quart	19	7	52
	new moon	25	22	3
	first quart	3	6	49
July.	full moon	11	7	54
	last quart	18	12	47
	new moon	25	7	11
	first quart	1	23	44
Auguſt.	full moon	9	19	49
	last quart	16	15	34
	new moon	23	18	4
	first quart	31	17	19
Septem.	full moon	8	6	15
	last quart	14	22	0
	new moon	22	7	29
	first quart	30	11	3
Octob.	full moon	7	16	15
	last quart	14	5	55
	new moon	22	0	10
	first quart	30	2	2
Novem.	full moon	6	1	51
	last quart	12	16	51
	new moon	20	18	45
	first quart	28	19	22
Decem.	full moon	5	11	52
	last quart	12	10	6
	new moon	20	14	5
	first quart	28	8	6

The Golden Number is 9, the Epact 29, the Romane Indict 3, the Sundays letters G, F, the after-winter 8 weekes six dayes, Quinquageſi. the third March, Eaſterday 21 April, Aſcenſion the 30 May, Withſunday the 9 June, Advent the one December. This year are to bee ſeen 2 Eclipſes in the Sun, and none in the Moon, the firſt in the Sun the 30 March, in the morningh at 10 houres 54 minut. The ſecond in the Sun the 22 September, in the eveningh at 7 houres 29 minutes, not ſeen by us.

Almanack for the Jear 1681. New-Stile.

	Moon.	da.	ur.	mi.
	full moon	3	20	54
	last quart	11	4	50
January.	new moon	19	8	24
	first quart	26	17	57
	full moon	2	10	38
	last quart	10	0	59
Februar.	new moon	18	0	20
	first quart	25	1	9
	full moon	3	23	38
	last quart	11	21	17
March.	new moon	19	13	15
	first quart	26	7	17
	full moon	2	13	56
	last quart	10	15	47
April.	new moon	17	23	35
	first quart	24	13	56
	full moon	2	5	1
	last quart	10	8	6
May.	new moon	17	7	43
	first quart	23	22	19
	full moon	31	20	30
	last quart	8	21	13
June.	new moon	15	13	39
	first quart	22	9	25
	full moon	30	11	17
	last quart	8	6	56
July.	new moon	14	22	13
	first quart	21	23	12
	full moon	30	1	50
	last quart	6	14	57
Auguſt.	new moon	13	5	29
	first quart	20	14	35
	full moon	28	14	52
	last quart	4	20	39
Septem.	new moon	11	15	15
	first quart	19	8	39
	full moon	27	4	37
	last quart	4	1	35
Octob.	new moon	11	3	41
	first quart	19	3	52
	full moon	26	16	36
	last quart	2	8	33
Novem.	new moon	9	19	15
	first quart	17	23	10
	full moon	25	3	41
	last quart	1	18	22
Decem.	new moon	9	13	28
	first quart	17	17	8
	full moon	24	14	24
	last quart	31	7	40

The Golden Number and the Epact is 10, the Romane Indict 4, the Sundayes letter E, the after-winter 7 weekes & 4 dayes, Quinquageſima the 16 February, Eaſterday the 6 of April, the Aſcenſion the 15 May, Whitſundy the 25 May, Advent the 30 November. There will bee this yeare 4 Eclipſes, two in the Sun, and two in the Moon, the firſt in the Moon the 4 March, about the midday, and not ſeen by us. The ſecond in the Sun the 20 off March, at one hours 15 minutes, after midnight. The third in the Sun the 12 September, in the morning the 3 houres 15 minutes. The fourth in the Moon the 29 Auguſty the two houres 54 minutes, after midnight, may bee ſeen by us.

Almanack for the Jear 1682. New-Stile.

	Moon.	da.	ur.	mi.
	new moon	8	8	58
	first quart	16	8	53
January.	full moon	23	0	44
	last quart	29	23	52
	new moon	8	4	4
	first quart	14	21	30
Februar.	full moon	21	11	57
	last quart	28	18	6
	new moon	8	21	20
	first quart	16	5	43
March.	full moon	22	22	17
	last quart	30	12	55
	new moon	7	11	28
	first quart	14	11	23
April.	full moon	21	10	6
	last quart	29	7	17
	new moon	6	22	41
	first quart	13	16	1
May.	full moon	20	22	49
	last quart	29	0	21
	new moon	5	7	34
	first quart	11	21	21
June.	full moon	19	12	29
	last quart	27	15	22
	new moon	4	15	24
	first quart	11	5	36
July.	full moon	19	3	4
	last quart	27	4	29
	new moon	2	22	3
	first quart	9	14	45
Auguſt.	full moon	17	17	38
	last quart	25	15	2
	new moon	1	3	27
	first quart	8	7	3
Septem.	full moon	16	10	6
	last quar	23	23	32
	new moon	30	2	31
	first quart	8	0	34
Octob.	full moon	16	1	36
	last quart	23	6	30
	new moon	30	21	50
	first quart	6	20	11
Novem.	full moon	14	16	7
	last quart	21	3	12
	new moon	28	15	54
	first quart	6	16	49
Decem.	full moon	4	5	39
	last quart	20	21	9
	new moon	28	9	4

The Golden Number is 11, the Epact is 21, the Romane Indict 5, the Sundayes letter D, after-winter 6 weekes & 3 dayes, Quinqnageſi. the 8 of February, Eaſterday the 29 Maert, Aſcenſion the 7 May, Whitſunday the 17 May, Advent the 29 November. In this yeare are 5 Eclipſes, 3 in the Sun, and 2 in the Moon, the firſt in the Sun, the 7 Febr. after midday, and may bee ſeen in the Norther part of America, the ſecond in the Moon, the 21 of February in the evening. The third in the Sun the 3 Auguſty, in the morningh, and may be ſeen in the Souther part of Africa, the fourth in the Moon, the 18 Aug. in the morningh, the beginningh ſhall bee ſeen of us, & the ending moor weſterly, the firſt in the Sun the firſt Septemb. after midday, may bee ſeen in the Laplant.

Almanack for the Jear 1683. New-Stile.

	Moon.	da.	ur.	mi.
	first quart	5	12	52
	full moon	12	17	0
Ianuary.	last quart	19	7	37
	new moon	7	3	42
	first quart	4	6	54
	full moon	11	3	11
Februar.	last quart	17	20	49
	new moon	25	22	29
	first quart	5	21	38
	full moon	12	11	52
March.	last quart	19	12	4
	new moon	27	16	11
	first quart	4	23	8
	full moon	10	22	17
April.	last quart	18	4	37
	new moon	26	7	18
	first quart	3	15	0
	full moon	10	7	37
May.	last quart	17	22	4
	new moon	25	19	58
	first quart	1	19	9
	full moon	8	18	12
Iune.	last quart	16	15	6
	new moon	24	6	12
	first quart	30	23	3
	full moon	8	5	44
Iuly.	last quart	16	7	36
	new moon	23	14	37
	first quart	30	6	12
	full moon	6	19	35
Auguſt.	last quart	14	23	3
	new moon	21	22	41
	first quart	28	13	15
	full moon	5	11	3
Septem.	last quart	13	12	41
	new moon	20	6	27
	first quart	27	1	39
	full moon	5	3	55
Octob.	last quart	13	0	40
	new moon	19	15	27
	first quart	26	17	49
	full moon	3	21	24
Novem.	last quart	11	10	34
	new moon	18	1	58
	first quart	25	12	57
	full moon	3	14	14
Decem.	last quart	10	18	12
	new moon	17	14	48
	first quart	25	9	53

The Golden Number is 12, the Epact is 2, the Romane Indict 6, the Sundays letter C, after-winter 9 weekes two dayes, Quinquageſima the 28 Februar. Eaſterday the 18 April, Aſcenſion the 27 of May, Whitſunday the 6 June, Advent the 28 Nov. This year are to be ſeen 4 Eclipſes, namely 2 in the Sun, and two in the Moon, the firſt in the Sun the 27 Jan. 3 houres 42 min. after midday, the ſecond in the Moon the 11 February 3 houres 11 min. after midday, the third in the Sun the 24 of July, in the morningh. The fourth in the Moon the 7 off Auguſty, in the morningh, none ſhall bee ſeen by us.

Alma-

ALMANACK.

Almanack for the Jear 1684. New-Stile.

	Moon.	da.	ur.	mi.
January.	full moon	2	5	34
	last quart	9	2	6
	new moon	16	6	6
	first quart	24	6	57
	full moon	31	20	35
Februar.	last quart	7	10	14
	new moon	14	22	48
	first quart	23	2	23
	full moon	29	5	21
	last quart	7	20	2
March.	new moon	15	16	27
	first quart	23	18	45
	full moon	30	14	32
	last quart	6	8	1
April.	new moon	14	9	33
	first quart	22	7	40
	full moon	28	22	27
	last quart	5	21	42
May.	new moon	14	1	23
	first quart	21	16	35
	full moon	28	6	15
June.	last quart	4	13	4
	new moon	12	15	14
	first quart	19	22	22
	full moon	26	14	57
	last quart	4	5	48
July.	new moon	12	2	58
	first quart	19	2	8
	full moon	26	1	3
Auguſt.	last quart	2	22	24
	new moon	10	14	39
	first quart	17	8	11
	full moon	24	13	24
	last quart	1	15	36
Septem.	new moon	8	22	52
	first quart	15	12	52
	full moon	23	9	28
	last quart	1	8	12
Octob.	new moon	8	8	5
	first quart	14	21	52
	full moon	22	21	37
	last quart	30	23	32
Novem.	new moon	6	17	18
	first quart	13	14	43
	full moon	21	16	9
	last quart	29	11	50
Decem.	new moon	6	3	30
	first quart	13	6	59
	full moon	21	10	50
	last quart	28	23	32

The Golden Number and Epact is 13, the Romane Indict 7, Sundayes letters A, B, afterwinter 7 weekes one day, Quinquageſima the 12 Febr. Eaſterday the 2 April, Aſcenſion the 11 May, Whitſunday the 21 off May, Advent the 3 December. In this yeare are 4 Eclipſes, 2 in the Sun, and 2 in the Moon, the firſt in the Sun the 16 January 6 houres 6 min. after midday, the ſecond in the Moon the 27 June 2 houres 49 min. and ſhall laſt off the beginningh to the end one hours 26 min. The third in the Sun the 12 July 3 houres after midday, & ſhall laſt but two houres 12 min. the fourth in the Moon the 21 of Dec. in the evening at 10 houres 50 min. & ſhal begin the 9 houres 8 min. & end 11 min. after midnigt, the laſt in the Sun, & the two in the Moon, may bee ſeen by us.

Almanack for the Jear 1685. New-Stile.

	Moon.	da.	ur.	mi.
January.	new moon	4	15	4
	first quart	12	2	57
	full moon	20	4	6
	last quart	27	7	40
	new moon	3	4	10
Februar.	first quart	10	23	36
	full moon	18	18	24
	last quart	25	14	31
	new moon	4	18	51
	first quart	12	20	36
March.	full moon	20	6	21
	last quart	26	21	30
	new moon	3	10	17
	first quart	11	10	16
April.	full moon	18	15	30
	last quart	25	5	57
	new moon	3	2	7
	first quart	11	4	1
May.	full moon	17	23	19
	last quart	24	16	31
	new moon	1	18	33
	first quart	9	15	29
June.	full moon	16	5	32
	last quart	23	5	12
	new moon	1	8	21
	first quart	8	23	42
July.	full moon	15	13	36
	last quart	22	20	13
	new moon	30	21	54
	first quart	7	5	22
Auguſt.	full moon	13	22	13
	last quart	21	13	9
	new moon	29	10	42
	first quart	5	9	51
Septem.	full moon	12	9	11
	last quart	20	10	27
	new moon	27	22	25
	first quart	4	15	29
Octob.	full moon	11	23	8
	last quart	20	2	3
	new moon	27	9	17
	first quart	2	23	22
Novem.	full moon	10	15	58
	last quart	18	20	14
	new moon	25	20	48
	first quart	2	11	24
Decem.	full moon	10	10	56
	last quart	18	8	37
	new moon	25	5	59

The Golden Number is 14, the Epact 24, the Romane Indict 8, the Sundays letter is G, afterwinter 9 weekes 6 dayes, Quinquageſima the 4 March, Eaſterday the 22 April, Aſcenſion the 31 May, Whitſunday the 10 June, Advent the 2 Decemb. This yeare are to bee ſeen 3 Eclipſes, one in the Sun, and two in the Moon, the firſt in the Sun the 5 January, in the morning at three houres 48 min. the ſecond in the Moon the 16 off June 5 houres 32 min. after midday, the third in the Moon the 10 December, in the evening at 11 houres, and ſhall laſt of the beginning to the end, 4 houres 9 min. 16 ſeconds, but the laſt of the Moon, may by us bee ſeen.

Almanack for the Jear 1686. New-Stile.

	Moon.	da.	ur.	mi.
January.	first quart	1	2	52
	full moon	9	6	28
	last quart	17	1	44
	new moon	23	12	31
	first quart	30	21	22
Februar.	full moon	8	0	49
	last quart	15	8	29
	new moon	22	1	58
	first quart	29	16	9
	full moon	9	16	52
March.	last quart	16	19	11
	new moon	23	14	34
	first quart	31	11	33
	full moon	8	7	28
April.	last quart	15	0	39
	new moon	21	5	4
	first quart	30	5	45
	full moon	7	15	33
May.	last quart	14	6	13
	new moon	21	16	41
	first quart	29	21	50
	full moon	5	23	32
June.	last quart	12	13	22
	new moon	20	9	48
	first quart	28	12	14
	full moon	5	6	27
July.	last quart	11	23	37
	new moon	20	0	31
	first quart	27	22	29
	full moon	3	13	16
Auguſt.	last quart	10	14	44
	new moon	18	15	39
	first quart	26	4	47
	full moon	1	21	22
Septem.	last quart	9	4	34
	new moon	17	6	30
	first quart	24	13	47
	full moon	1	7	18
Octob.	last quart	8	23	4
	new moon	16	20	38
	first quart	23	19	50
	full moon	30	19	54
Novem.	last quart	7	18	49
	new moon	15	9	48
	first quart	22	2	45
	full moon	29	11	56
Decem.	last quart	7	15	2
	new moon	14	21	36
	first quart	21	13	37
	full moon	29	5	47

The Golden Number 15, the Epact 5, the Romane Indict is 9, the Sundayes letter is F, afterwinter 8 weekes 5 dayes, Quinquageſima the 24 Febr. Eaſterday the 14 April, Aſcenſion the 23 May, Whitſunday the 2 June, Advent the 1 December. In this yeare are 3 Eclipſes, one in the Sun, and two in the Moon, the firſt in the Sun the 22 May, in the morningh at 4 houres 41 minut. The ſecond in the Moon the 6 of June, about midday. The third in the Moon the 29 November, about middnight the 11 houres 54 minutes, and ſhall laſt of the beginningh to the end, about 3 houres, may bee ſeen by us.

Almanack for the Jear 1687. New-Stile.

	Moon.	da.	ur.	mi.
January.	last quart	6	9	53
	new moon	13	8	27
	first quart	20	0	56
	full moon	28	0	59
	last quart	5	2	0
Februar.	new moon	11	18	45
	first quart	18	13	10
	full moon	26	19	58
	last quart	6	14	34
	new moon	13	4	35
March.	first quart	20	9	21
	full moon	28	12	49
	last quart	4	23	19
	new moon	11	14	40
April.	first quart	19	2	57
	full moon	27	2	50
	last quart	4	4	34
	new moon	11	1	12
May.	first quart	18	20	27
	full moon	26	14	36
	last quart	2	8	44
	new moon	9	8	56
June.	first quart	17	13	28
	full moon	24	23	2
	last quart	1	13	24
	new moon	9	2	1
July.	first quart	17	5	23
	full moon	24	6	56
	last quart	30	20	44
	new moon	7	16	36
Auguſt.	first quart	15	19	10
	full moon	22	15	43
	last quart	29	3	28
	new moon	6	8	31
Septem.	first quart	14	6	52
	full moon	20	22	2
	last quart	27	21	48
	new moon	6	1	41
Octob.	first quart	13	14	2
	full moon	20	7	21
	last quart	27	15	25
	new moon	4	17	2
Novem.	first quart	12	0	54
	full moon	18	18	58
	last quart	26	11	28
	new moon	4	9	10
Decem.	first quart	11	7	48
	full moon	18	9	3
	last quart	26	8	37

The Golden Number 16, the Sundayes letter is E, afterwinter 6 weekes 4 dayes, Quinquageſima the 9 February, Eaſterday the 30 March, Aſcenſion the 8 May, Withſunday the 18 May, Advent the 30 November. This year are to bee ſeen two Eclipſes in the Sun, & none in the Moon, the firſt in the Sun the 11 May, 1 uur 11 minutes after midday. The ſecond in the Sun the 5 November. Theſe two Eclipſes not to bee ſeen,

A TABLE

A TABLE

For all Lovers off Navigation,

OF THE

EASTERN-WATER,

Whereby commodiously to finde of each Folio al the Sea-Cardes, Coasts, and the chifest places, named in this Book.

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Pascaart van EUROPA.

Als mede een gedeelte van 't oost van Africa.

t Amsterdam.

By Theunis Iacobsz op 't water inde Lootsman.

OCEANUS OCCIDEN

AFRICA

PARS.

HISPA

Genchoe

Marocco

Barbaria

Sardinia

Sicilia

Dalmatia

I. de la Flores

Cuervo

Figual

I. del Pico

Terceira

S. Michiel

S. Maria

I. Brava

S. Antonio

I. S. Nicolas

I. de S. Tiago

I. del Fuego

I. Sal

Ferro

Palma

I. Tenerife

I. Madera

Canaria

Porto Santo

Fortaventura

Alegranca

C. Finisterre

Yrica

Maiorca

Minorca

Malta

Corsica

Pascaart van EUROPA. Als mede een gedeelte van 't oost van Africa. t Amsterdam. By Theunis Iacobsz op 't water inde Lootsman.

TASSIS

GROENLAND.

Bus

Fogelsberen

Rokol

Walhasch

Ysland

Engeland.

Schotland

Irlandt.

De Kimmen

SWEDEN.

LAPLAND.

DVYTS LANT.

Spits bergen

Nova Zemla.

Duytsche mylen 15 in een graet

Spaensche mylen 17½ in een graet

Eng. en Fra. mylen 20 in een graet

ENGELANDT.

Northumberlant.

Edenberg

Nicastteel

Yorcke.

Lincolne.

Chelsy

London

Essex.

Norfolk.

De Hoofden

Calis

Flandria.

Antwerpen

Hollandia

Amsterdam

Rotterdam

Utrecht

Gelderlandt

Overyssel

Groeningen

DERLANDT.

Emderlandt

Bremen

Keydingerlant

Hamburg

Lubeck

Wilmar

Rostick

Straellund

Rugen

POMEREN.

MEKELENBORG

HOLSTATIA

JUTLANDT

Fumen

Der Deuts

Halandt.

Schoonen

Stein.

Camin

Duytsche mylen 15 in een graadt.

Spaensche mylen 17½ in een graadt.

Engelsf. en Franse mylen 20 in een graadt.

Pas Caart van de

NOORT ZEE,

Verthoonende in zich,

alle de Cuſten en Havens,

daer rontom gelegen.

t'Amſterdam

By Iacob Theuniß Loots-man, Boeckverkoper en Graadbooghmaker, op't Water inde Loots-man.

Orcades I.

Hirlant

Ferol

Fula

Blamerbergen

Zello

Olste

Baltra a Eyl

Lamfirr

Rattenberg

De Kimmers

NOORWEGEN.

SWEDEN.

Lant van Stadt.

Vlieter

Maerdos

Lauwyck

Coperwyck

Anſloo

Dronten

Roemsdael

Sommige namen dat Vlie met letters aengeteekent:
a de Telling
b Voor de Slot
c 't Robbegat
d Noort Telling
e Rees beeck
f Dominicus of Meinsen plaet

Duytsche mylen 15 in een graet
Spaensche mylen 17½ in een graet
Eng: en Fra. mylen 20 in een graet

Holwart

Ame
Ballum
lant
Slot
Hollum

Nes

De Horsh

Camper sand droog

Amelander gat

Caap Der Schelling

Oosterboomstert

Caap Vierhoet

Brandaris

Grind

West droogh sant

Wester haams Gat

Vlie lant

Vlie hoet

Noortwijck

Everland

Spanjaerts gat

Texel
de Burgh
de Westen
Horn
Oosterend
Caap
Schilt
Schuddebeurs
Sant
Slenck

Francker

Wynaem
Arum
Midlum
Harlingen
Pingum

Bolswart

Pandragen
Workum
Hinlopen

Ameland
Schiermonnick oogh

Brec sant

Inschot
West Workum
Noorder ton
Middel ton
Zuyder ton
Driesal
Manneke sant

Wieringen
Oosterlander kerck
Wester kerck
Sen
Vrede
Oosterlander kerck

Reesel
Mars
Mars diep
Lang diep
Bleack
Arnemberghers kille
't Oogh
Slenck

de Helder
Muys durre
Groote caap
Kyck duyn

U R I E S S A

L A

Pascaarte vande
ZUYDER-ZEE,
Texel, ende Vlie-ſtroom, als
mede t Amelander-gat.
t'Amſterdam.
By Iacob Theuniſz. boeck-ver-
kooper inde Lootsman.

Blanckenham
Blockzijl
Vollenhove
Oldenhoff
Swartesluys
Geelmuiden
Kuinder
Heusden
Campen
Emmeloort
Ens
Elburgh
Vrck
Harnes
t'Val van Vrck
de Knorre
Noorder gat
Geldersche hoek
Broecker oort
Enckhuysen
Zuyder gat
Buurt huysen beoosten Werts hoof
Grote broeck een hoge spitse toorn
Werterts hoof
Cleine broeck een kleyn spitz toornken
8 Water molens beoosten Medenblick
Hem een spitze hoge toorn
Medenblick
5 Water molens bewesten Medenblick
Ilperdoes
Ilperſck
H O L:
t Hoornicker hop
Hoorn
Marcken
Out Nieuwland
Naerden
Muyerberg
't Slot
Muyden
Weesp
Scaerdam
Warder
Edam
Vollendam
Monnikedam
Eerſtbeem
Vdam Schivel
Dyck
Dorgerdam
Wercken
Nieuwendam
Buyckſlot
Volendam
Ilperſck
Diemen
Amſterdam
N D T
Ton oyde Mosſcde
Texel
Crabgat
Waegen Gat
Zuyder gat
t'Nieuwe Canaal door last vanden E. E. Heeren Burgemeesteren der Stad Amſterdam, begonnen den 5 Iunij Anno 1649

The first Part of the New

Lightning Sea Columne,

OR

SEA MIRROUR.

The first BOOKE of the

EASTERNE NAVIGATION,

CONTAIGNING

The Deſcription of the North-Sea, the Coaſt of Holland, Freeſlandt, Holſteyn, Jutland, Meklenburgh and Denemarck to Valſterboen, in the Iſland of Rugen, and with all the Coaſt of Norway to Dronten, as alſo the eaſt-ſide of England and Scotland.

The firſt Demonſtration,

Where in are Deſcribed

The South-Sea, the Vlie-ſtreame, the Vlie & Channell of Ameland.

Pamus.

WHen you ſaile from Amſterdam to the Fall of Urck, you muſt keep the midle of the Channell, inſayling to Tyoort, and from thence over Pampus with a Shipp off great draugt, that draweth 10 foot or more: Keepe Marken Church without to the land of Udam, called Schyteldoecks-haven, ſo long untill that the ſteeple of Zuyderwouw come paſt Kinnigerbeurt, which are the houſes half way betwixt Schyteldoeks-haven & Durgerdam, goe then towards the land eaſt, until that the New Church of Amſterdam come about Durgerdam, kepe that ſo ſtanding untill that the Church of Weeſp be come paſt the Houſe or Caſtle at Muyen, ſo that it do ſtand ſomewat nearer to Muyen then to the Houſe, kepe Weeſp ſtanding ſo, until that Edam come whithout the eaſtend of Marken. In this fareway it is a foot deper then if you ſail rigt troug.

For to avoyde Muyen-ſand, men where wont to bring the Houſes, which where wont to ſtand upon Tyoort, to the ſouthwards of the Heyligerſtee at Amſterdam, thereby you may make ſome reckoning, they are good longſt markes. When Monnickedam is about the weſt-end of Schyteldoecks-haven, and the Houſe at Muyen betwixt Weeſp and the Church at Muyen, then are you thwart of Muyen-ſand. For to ſaile rigt throug over Pampus, then keepe the ſteeple of Diemen over or about the point of Tyoort ſo long as you can ſee Tyoort, that is a rigt longſt marke for to ſaile over Pampus.

When you are come thwart of the eaſt-end of Marken goe then on northeaſt or ſomewat more eaſtwardly towards the Fall of Urck, which is 7 leagues: when you are come with in a great league of Urck, you ſhal meete with a hard ſand, called the Houtribbe, lying ſoutheaſt & northweſt thwart over the Farewaye; there is no more water upon it then upon the Flat of Wieringen, or of Freeſland you ſhall finde alſo deeper water there then rigt through

The Houtribbe.

When Enchuyſen lyeth northweſt & northweſt & by weſt from you, then you are upon the Houtribbe. Before that you come againſt the ſand, you can by night ſee the fire upon Urck. When as Urck or the Fire is more northerly then northeaſt from you, and that you get ſhoaling, then that is certainly of the Houtribbe, for ſo you cannot come to neare the Enchuyſen-ſand. When you come from the ſouthwards, you are not about the Enchuyſen-ſand, before that the Church upon Urck come without the litle village of houſes, which is then eaſt and by ſouth, and eaſt ſoutheaſt from you: If that then you goe away northweſt and by weſt, or weſt northweſt, you ſhall runne cloſe alongſt by the ſide of the land. Whit a ſhip of great draught, bring the Church a good way through the Houſes, untill that it ſtand eaſt ſoutheaſt from you, then goe bouldly on northweſt and by weſt, or keepe Medenblick without the point of the Ven, & ſo you ſhall not come to near neither to ſand nord ſhoale. Likewiſe if you come from the north wards, & bring Urck not more eaſtwardly then eaſt ſoutheaſt from you, then you can not take hurt alſo of the Enchuyſen-ſand. From Urck to the Buyes upon the Cripple and Hofſtede, the courſe is n. w. and by weſt, with that courſe you may runne all alongſt unto the ſouther-buye upon Wieringer-Flat. In turning to windwards, you may well bring Medenblick a little within the point of the Ven but when as Medenblick is without it, then you are in the rigt fareway.

Marks of Enchuyſer ſand.

Betwixt Urck & the Buye upon the Hofſtede n. e. ſomewhat eaſtwardly from the Steeple of Enchuyſen lyeth a litle Plate of hard ſand, lying towards the end of Enchuyſen-ſand, which is not deeper then the Frees-Flat, about to the eaſtwards of it, is the deepeſt water, but about to the weſtwards of it (by ſome called the Katte-gat) you ſhall beſoner about the hig Horne or the Enchuyſer-ſand, and it is good for ſhips that draw but little water.

Marks of the Buyes upon the Hofſtede & Criple.

The thwart Markes of the Buyes both upon the Cripple and Hofſtede, are Groote-broeck and Hem (two ſharp ſteeples) rigt one in the other, and Warnis a little ſharp ſteeple in Freeſland to the ſouth-ſide of the Cliffe of Staverne, then you have the length of theſe Buyes, which

lye each of them in 3 fathom, the one on the east shoare, & the other on the west shoare upon the taile of the Cripple. There is in the rigt farewaye, two foot lesse then 5 fathom, & soft ground. When the steeple of Medenblick commeth to the northwards of the house of Medenblick, so farr as the house is broade, then you are cleare of Cripple sand, & past it; goe then on n. w. & n. w. and by north to the buye upon the Creyl, according the winde & tyde shall be, the right farewaye there is deepe 5 fathom scharce.

The Creyl. South Creyl. Thwart of the Creyl, in sailing out about the Creyl, in sailing in, that is a little within the Creyl on the north shoar, lyeth alongst the reach (towards the buy upon the Hof-steede,) a hard-sand or plate, called the south Creyl, upon which there is no more then 12 foot water, at low water, betwixt that Banck & the north shoare, it is 3 fathom deepe, & soft ground, and so the southwards, or the westwards of it, 4 fathom and an halfe. When Mirnes, a little flat steeple in Freesland, commet over a long countrie house to the soudwards of the Cliffe of Staverne, then you come rigt thwart of that foresaid plate.

Marck of the Creyl. The markes of the buye upon the Creyl, are the sharpe steeple of Twisch over the Corne-mill to the westwards of Medenblick, and that little flat steeple of Mirnes to the south-side or east-side of the Cliffe. The rigt fareway there is 4 fathom and an half, and 5 fathom deep, soft ground, the buye lyeth in 4 fathom, if need require, men may runne wel a Cables length about to the eastwardes of it.

Freese-plate. From the buye upon the Creyl, to the buye upon the Freese-plate, the course is north and by east: When the steeple of Twisck commeth a little to the northwards of Medenblick, then keepe them so standing, so long as you can see it; and then you shall not saile within any shoales betwixt that plate and the Creyl.

Monik-sand. Betwixt the buye upon the Creyl, and the Freese-plate, on the west shoare, alongst the Reach, lyeth a hard sand, called Monick-sand, which men may be foul of, if they runne somewhat to farre over to the westwards.

When you are come about the Creyl, you may goe on north & by east (with a shippe that draweth but litle water) over the taile of Broad-sand, rigt to the buye upon the sand, called West-Worckum, but with shippes of great draughts, you must keep the rigt farewaye. For to finde the deepest water upon the flat, bring Pendragen, a little flatte steeple (standing to the westwards of Worckum) to the westwards of a little village, which standeth also to the westwards of Worckum, and saile so rigt with it, that is a good longst marke of the Buy upon the Freese plate, & so you shall runne rigt with the Buy, when as that Warnes & Mirnes come one in the other, to the northwards of Staveren, then you have the length of the Buy, which lyeth on the west-side of the Plate, you must runne alongst to the westwards of it, there is the deepest water; when you come from the northwards, you migt saile within the Freese-plate on the east shoare.

Being past the foresaid buye upon the plate, goe on n.n.e. untill that Pendragen come betwixt the little village and Voorwolde. If that you have then the Cliffe throug Staveren, then you have the deepest water upon the shoalest of the flatt, then men runne commonly a little more northerly unto the Buye in the Bight, and alongst to the westwards of it, which lyeth right in the farewaye, in 16 foot, but alongst to the eastwards of the Buye is the deepest water, the farther into the Bight towards Frees-land the deeper. The marke of this buy, is the little flatt steeple of Mirnes on to the southwards of Molqueren. Bring that foresaid little flatt steeple in Molqueren, & keepe it so standing, and then you come in the farewaye of the Buy of West-Worckum, that is a very good marke, when the Buyes are taken away.

Buy in the bigt

The old thwart marckes of the Buy in the Bight, are Mirnes, Molqueren, Hemelum, and a little long village, when they stand in four parts. Betwixt the Buyes upon the Freese plate, and in the Bigt, is the shoalest of the flatt.

When the buy in the Bight is on your broad-side, then goe on north and by west, somewhat more westerly, into the Buy of West-Worckum, which lyeth on the east shoare in 16 foot at low water, upon these marcks; a little sharpe steeple, far within the land, called Harich, commeth over a little village, to the northwards of Hinloopen, called Dertwisch, the right deepe thwart of it is three fathom. The old marckes are two villages next to Mackum, upon the water-side, standing northeast of from it, when these stand a little asunder, one from the other, you see yet two little steeples somewhat to the northwards of Bolswart, allmost one to the other, neare about as the other upon the water side stand asunder, the one is called Idsegahuysen. The thwart marckes are a high house on the east-end of Coudom, that commeth within a capstane barres length to the south-end of Hinlopen. From thence to the buy upon Ygelhoeck, the course is north, the markes there of are, a little sharpe steeple with the first long village to the northwards of Worckum, called Geest, when that little steeple commeth in the innermost swampe of that long village, then you have the Buye, that is a good thwart marck: the longst marcks are, the sharpe steeple of Pingom over the flat steeple of Coorenwaert upon the water-side, and Pendragen to a little house to the northwardes of the village with the swamp, or when the mill of Staveren standeth betwixt the towne and Blockhouse of Staveren, these are al good longst markes of the buy upon Ygelhoeck.

Ygelhoeck.

From Ygelhoeck to the Middle-ground the course is north, the rigt deepe in the Middle-ground is seven fathom in the farewaye betwixt West-worck and Ygelhoeck the rigt deep in four fathom, soft ground, the east shoare is flatt and the west-shoare steep. The Buy of the Middle-ground lyeth upon the marcks: the two sharpe steeples Arun and Pingom one in the other about northeast from you: or Bolswaert right to the northwards of a Countrie-house, to the northwards of Mackum, these are good thwart marcks of the Middle-ground. The longst marckes are; Kinswaert (that is the runner) commeth behind the Church of Surich, then you are rigt in the farewaye. The Church of Surich standeth upon the water-side, upon a point that lyeth out about northeast and by north from the Buy, or when the flat steeple of Wynaem (to the northwards of Harlingen) commeth betwixt Middlum and the east-end of Harlingen, then you are right in the Middle-ground, on which side that Wynaem standeth neareſt, that shoare you are also neareſt unto, the west shoare is steep; the east shoare indifferent flat, you may runne over it in three fathom, and come againe five fathom towards Friesland. From the Middle-ground outwards to the Flye, you can sail within no tailes of sand on the west shoare.

Middle ground.

Being past the buy in the Middle-ground, then goe on north northwest unto the Buy upon Swanebalgh, which lyeth in three fathom on the east shoare, the thwart marcks there of are Bolswaert over a little short house to the southwards of Cornwaert. When you runne over betwixt the buyes of the Middle-ground and Swanebalg on the east shoare more easterly then in three fathome. That you come againe in four or five fathom, you might (in sailing out) sayl behind the shoals of Swanebalgh, or when you are bound in behinde the shoals of the Middle-ground, the west shoare thwart of this, you may sound in 4 fathom, or 3 fathom and an half, over against the buye upon Swanebalgh, on the west shoare is good ground for to anchor in.

Swane-balgh.

From the buy upon Swanebalgh to the buy upon Schuyteſand the course is northwest somewhat northerlye: the thwart marckes there of are Wynaem over the higheſt part of Harlingen: the longst marckes are, Bolswaert the northwards of the Sluys, which lyeth to the northwards of Woens: this buye lyeth in six fathom on the east shoare, upon a taile or point, which you might sayle within when you sayle out, the right deepe thwart of it is 7 and 8 fatom, the west shoare is indifferent flat, which you may sound in 4 fathom, the east shoare is steepe but a little without the buye it is flatte all alongst to Keeshock, & you may sound it al alongst unto the Sloot. In sailing up, you might sayl within the west shoare over again Schuyteſand, or a little to the southwards of it in 3 fathom, or 3 fathom & a half unto a Deadbalg, behind a taile of

Schute-sand.

Buy off West-Worc-kum.

of ſand, called the point of the Waert, but keeping in 4 fathom from that ſhoare, you cannot take hurt of it. In ſailing up with a forſloud, keep the eaſt ſhoare, or els you ſhould be lightly carried ther with into the foreſaid balgh, behind that Waert, before you ſhould be aware of it. Upon the point of that waert ſtandet a drift beacon, & two to the northwards or the weſtwards of it, which men do call the beacons of Claesomen, & to the ſouthwards of it ſtandeth a beacon upon Dominicus plate, or (as the Pilots de name it) Meynſen plate. The marks for to ſail alongſt this long reach are: Mackum with a mill upon the water ſide, and a village with a little flat ſteeple to the ſouthwards of Mackum, called Idſegahuyſen, when Pandragen commeth betwixt Mackum and that village then you ſhall go cleare of that foreſayd taile or Deadbalg: If Pandragen come neareſt to Idſegahuyſen, then you are to near the foreſaid taile or plate, or if Pandragen come neareſt to Mackum, then you are to neare the eaſt ſhoare.

From Schuyteſand to the buye upon Keeshoeck, the courſe is w. n. w. or northweſt and by w. according as the wind & tide ſhall be. In that long reach goe little more then halfſtides alongſt the deep, the afterfloud & fore-eb fall thwart over there to the weſtwards, & the after-eb & fore-floud right contrarie to the eaſtwards. The marks of the buy upon Keeshoeck, are Franiker ſteeple betwixt the mill and the towne of Harlingen, or to the maſtes of the Schips which lye in the haven.

This buy lyeth on the eaſt ſhoare, the right fareway thwart of it is 8, 9 and ten fathom deep.

Betwixt Keeshoeck and Schuyteſand, or betwixt the beakons of Claesoomen & the point of the water lyeth a little narrow plate alongſt the reach, allmoſt in the middeſt of the fareway neareſt to the w. ſhoare, where upon it is not deeper then four fathom, or 3 fathom & an halfe, when men runne to windewards they are over it with 2 or three eaſts of the lead.

Weſtwards from the buy upon Keeshoeck lyeth the Old-Flye, it lyeth in firſt ſ. ſ. w. and then forth to the buy upon the Neſſe in the Teſſel-ſtream. The after floud with the fore ebb fall in verie ſtrong into this channell. In ſailing upwards you might ſail within it in 4 fathom. The marks of it are, the ſteeple of Franiker right to the ſouthwards of the ſteeple of Harlingen. From thence outwards of unto Schieringshals the weſt ſhoare is verie ſteep, in 8 fathom you ſhall be cloſe by the ſhoare. The fareway betwixt theſe buyes, and thwart of the buye upon the Ellbowe is 10 & 11 fathom deep.

From Keeshoeck to Wolfshoeck the courſe is firſt n. w. and n. w. and by north unto the buye betwixt them both, by ſome called the Schor-tun & by the Pilots the buy upon the Elbowe: and from thence to the buy upon Wolfshoeck, north, or ſomewhat more eaſterly, which lyeth in 4 fathom on the eaſt ſhoare.

From the buy upon Wolfshoeck unto the buy unto Schieringshals the courſe is n. n. w. and n. w. and by north according as the winde and tyde ſhall be. To the northwards or to the eaſtwards of the buy upon Wolfshoek goet up a broade bigt ſ. e. farre into the groundes, ſo deep as the rigt fareway, called the Inſchot, comming in you migt ſaile within in 7 fathom, the forefloud falleth from Schieringshals verie ſtrong into it, and the fore ebbe to the contrarie, very ſtrong out of it upon the taile of Schieringshals, where by maine ſhips are miſcarried.

Schieringshals is a tail of ſand, which ſhooteth of from the weſt ſhoare, upon it lyeth a white buye in 3 or 4 fathom, comming in from without, men migt ſaile within in 6 fathom, the rigt deepe betwixt Wolfshoeck & Schieringshals is 9 fathom.

From Schierings-hals to Longſand, the courſe is n. w. and n. w. and by north, betwixt them both on the weſt ſhoare it is ſhallow water, and the beſt roade of al the Flye ſtreame, there goeth alſo a little tyde. The rigt deepe is 8, 9 & 10 fatom, Longſand men migt ſail within it on the eaſt ſhoare, inſailing up, but if they keep them ſelves in 7 or 8 fathom, they ſhall not come to neare neither of Longſand nor Schierings-hals. When the eaſtermoſt houſe upon Grindt commeth a little to the northwards of the weſtermoſt, then you have even the lengt of the buye upon Longſand. From Longſand to the Sloot the courſe is forth n. n. w. the rigt deep is 10 fathom, or men runne alongſt by the beakons upon Crakeſand untill they come in to the Sloot. Monkſloot.

The Iſland Flie-land is 3 leagues long, & a land very eaſy to known: upon the eaſt-end lye hig white ſand-hilles, and to the weſtwards it is a land ful of ſhort low hommoks or knobbs. Upon the weſt-end ſtandet a Church with a mill to the eaſtwards of it. From the weſt-end ſhooteth off a riffe a good wayes into Sea. To the weſtwards of this riffe, betwixt Flieland & the Eyerland goeth in a deep, called the Weſtergat, or Weſtfiel-deepe which is not for great ſhips, but onely for Fiſher boates, there is not above 8 or 10 foot water. Upon the eaſt-end ſtandet a mill with a Cape, the which are markes for to avoid the grounds which lye before the Flie.

The eaſt-end of Flieland, & the weſt-end of Teſſel lye 8 leagues aſunder.

Eaſtwards from Flieland lyeth der Schelling, & is about 3 leagues long. Upon it ſtand two Churches & upon the weſt-end there of it hath an hig ſtubbed Tower, called Brandaris, & by it ſtandet a Mill, about the middie of the land ſtandet a ſharpe ſteeple called Midlands. Eaſt there of ſtandet another Spiri ſteeple, called the Hoorn: betweene Midland, & the Hoorn ſtandet a mill. On the eaſt-end there lye little hills or downes. Upon the weſt-end ſtandet a Ligt-houſe upon which there is fire at night, & two Capes, the biggeſt ſerveth as a Marck of the eaſterne Booms channell, & the leaſt for the weſterne Booms-channell. Der Schelling.

Storte-Melck.

TO ſaile in to Storte-Melck (that is the Land-deep of Vlieland) bring the Cape that is on the eaſt-end of Vlieland and the Ligt-houſe together, they ſhal then ſtand from you ſ. ſ. e. or a little eaſterly, ſaile there upon, & you ſhall fall rigt upon the firſt buy, that lyeth on 5 fathom, on the outermoſt of the long Banke, the Banke is on the nord-ſide reaſonable plaine, ſo that thoſe two come out of the north may run thereby upon the lead in 5 or 6 fathom, and ſo likewiſe find the outermoſt Buy. If neede require men may run over the end of the long bancke, but not farr eaſtwards of the outermoſt buy in 3 fathom or 18 foot, towards the ſhoare throug not eaſtwards of the ſecond Buy, but a good way weſtwards, lyeth rigt ſouthwards the point of another ſmall taile, where upon neere the buy is no more then 11 foot water, betweene this taile and the long banke runneth a Chopp in the ground to the eaſtwards off 5 fathom deepe. It happenet ſometimes that ſhippes comming over the end of the long bancke and finding againe deeper water, doe thinke themſelves to bee in the rigt depth of Stortemelck, where upon they luffe but runne in the foreſaid Chopp in betwixt the two foreſaid tailes, & if with a weſterly wind not without greate danger, and yet muſt run out againe backwards. Comming out of the weſt alongſt by Vlieland in 4 or 5 fathom, you ſhall not miſſe to run the foreſayd outermoſt buy in ſight: Hee that in the night falleth about Storte-melck let him bringh the Light-houſe ſ. ſ. e. from him, and run there upon till hee come neerer the ſhoare hee ſhall run to the weſtwards of outermoſt buy, within Stortemelck there lye 7 blacke buyes with one white buy, ſailing in leave all the blacke on the larboard & run alongſt the ſouthwarde, leave the white on the ſtarboard, even as all other white buyes as well in Booms-channell, the jetting as upon the Vlieſtream.

In comming from Stortemelk you muſt ſomewhat ſhun the ſhoar for it hath a ſhoale rigt over againſt the firſt Buy.

The ſecond Buy called the outermoſt Drooge drie lyeth on 11 foot upon the ridge or the ſhoaleſt of the channell, ſouth there of is alſo not more then 11 foot water, and a litle further againe 16 foote deepe. The third is called the innermoſt Drooge drie lyeth on 16 foot the rigt depth betweene both is 3 fathom. The fourth is called Heykhoek, betweene this and the third the rigt depth is in 5 fathom, over againſt the fourth lyeth the white Buy on the ſtrand, hard by runneth a little taile from the ſhoare, which you may under ſaile when you ſaile outwards to this white Buy,

or to the third from without it ſtretcheth e.n.e. in, from the fourth to the fifth allmoſt eaſt, & further more & more ſoutherly. The fifth Buy is called the outermoſt corner Buy, the ſix the midlemoſt corner Buy, & the 7 or laſt the innermoſt cornerbuy, betwixt the outermoſt & midlemoſt corner buy, the next outermoſt runnet a taile from the ſhoare wich you may under ſaile from without, this groweth ſometimes allmoſt as farre as the Buy, then breaket the depth by the wall againe throug & ſcoures the taile wholly to the north ſhoare, from the innermoſt buy men run forth alongſt by the ſtrand of Vlieland, or ſouthward to the buy upon the plate.

Ooſter-Booms Gat.

THE Ooſter-booms Gat is altered very much, the Schorre-grounds or as ſome calls them now a dayes Peters-grounds, are over growne verry neere to the ſhoare or ſtrand of the Schelling: Before it lyes a Bank or a little ſandplate, betwixt the a foreſaid Schorre or Peters-grounds & the ſtrand is according to the Teſtimony off Maſters (ot Shippers) which uſally ſaile in & out with their Smacſhips: about the halfe off a ſhipps length broad, and about two ſhipps length long, is upon the plate or Banck 5 & 6 foote, & betweene the Banck and the ſtrand 7 and 8 foote, but betweene the Schorre or Peters-grounds well 11 or 12 foot water; So that if heere lay on the corner of the Schorre or Peters-grounds a runne or Marcke, to decerne or finde this entrance or gapp, one could then verry eaſily ſaile in & out with a Fluyt-ſhipp, but ſeeing the place is not marcked with a runne, it is judged unfit to bee uſed by great ſhipps, & onely navigable for Smacks; Comming from the eaſt, & haveing Midlands-church, ſtanding upon the Schelling, ſ. ſ. e. from you, then you are neere about this ſaid banck, and ſeeing there is nothing elſſe to be written off this Ooſter-booms Gat, we wil leave it & paſſe over to the deſcription and ſituation of the Weſter-booms Gat.

The Weſtern Booms Channell.

TO ſaile into the Weſterne Booms Channell comming from the weſt, bring the Cape & Tower of Brandaries togeter, that is then eaſt & eaſt & by ſouth from you, there upon you muſt run to find the outermoſt buy, there is 6 fathom water, keepe then the Cape & Tower ſo ſtanding till you come to the ſecond buy, bring then the Tower a great handſpikes lengt to ſouthwards the Cape, & ſaile there upon then you ſhall ſaile betwixt a white and black buy, there is it upon the ſhoaleſt 17 foote with low water, from thence you come to 6 and 7 fathom, & then you come againe it the rigt Booms Channell, on the north-wall it is the deepeſt, it is wide & broad that you could wel vere it up, the ſtream runs there of it ſelfe rigt in ſtill weather.

The letting. To ſaile into the letting comming throug the Robbegat, about the Roſyne plate, you muſt run towards the buy upon Langeſant, & forth betweene the white & black buy, leaving in ſailing up the black on the larbaord & the white on the ſtarboard till you come by the beakons upon the Nakens, you may eaſly ſee from buy to buy, ſaile then forth alongſt by the Beakons upon the Nakens e. ſ. e. on till Brandaires commeth hard by Grind, but not upon it, keepe them ſo ſtanding, & run ſouthwards on & you ſhall ſaile upon the buy on the taile of Hendrik 't Jaerts plate, theſe you may under ſaile on the eaſt-ſide, leave them on your larboard, & run on w. away ſ.ſ.e. to the laſt buy that lyet upon the ſouth point of the foreſaid Hendrik 't Jaerts plate. Over againſt the Beakons upon the Nakens lye on the ſouth wall two white Buyes, the moſt eaſterly lyet upon the taile, which ſailing of you may underſaile ſouthwards betweene the 2 laſt blacke buyes by the weſt coaſt is the roade where the ſhips (which are bound to Harlingen) ſet on to lig ten.

NOTE.

All the depths here before rehardſe, as well of Stortemelck as of the Boomkens-gat, are ſaid of the loweſt water, at halfe flood is 3 foot deeper, it floweth upon theſe at the foreſaid places with a common tyde five and a half or ſix foot up and downe. The numbers of the depths ſet downe in the Carde of the Flye and Ameland-gat, are to be underſtood of feet: as for examble, by the outer buy of the Boomkens-gat ſtand 66 that are 66 foot, or 11 fathom, 6 foote being reckoned for a fathome.

Ameland-Gat.

TWO leagues to the eaſtwardes of the Schelling lyeth Ameland, lying e. n. e. & w. ſ. w. 4 great leagues. Upon the weſt-end of Ameland ſtandet a Cape, & a great thik flat ſteeple, called the Hoelme, the rooſe of this church is broken off, but the after front with the rooſe ſtandet above the ſide walls, to the eaſtwards of the Church of Hoelm ſtandet a Mill, with a houſe to the weſtwards of the Mill, alſo a broad flat Tower. About the place where Midland-church was wont to ſtand, lye 3 or 4 white ſandhilles, which are low, flat & long, towards the eaſt-end it is knobbie lant, with white amongſt it. From the weſt-end of Ameland runneth off a riff, almoſt 3 leagues into Sea, called Born-riff, Born-riff. which is upon the outer-ſide verie ſteep: come no nearer it then in 12 fathom, comming from the eaſtwards you cannot ſaile whithin it, but in ſailing alongſt by it in 7 fathom, you ſhall not run a bowles eaſt a long without it.

For to ſaile into Ameland-gat, comming out of the Sea, bring the cape upon the eaſt-end of the Schelling, right over the ſteeple of Horne, which ſhall then ſtand from you ſ. ſ. w. or a little more weſterly, ſaile in rigt with them, untill that the Cape upon Ameland, & the ſteeple of Hoelme are one over the other, then leave the firſt markes, & ſaile in upon the ſecond, and you ſhall finde the outermoſt buye, which lyeth ſomewhat within the outermoſt point of Born-riff. Comming from the weſtwards, run alongſt by the ſtrand of the Schelling in 5 or 6 fathom & an halfe at low water, & you ſhall not fail to ſaile rigt upon the outermoſt buye, & then Cape & ſteeple upon Ameland ſhall alſo come one over the other, & ſtand from you eaſt, or a little more ſoutherly. Comming alongſt by the Schelling in 4 fathome, you ſhall not ſaile within the Koggedeeps ground, over againſt then lyeth the firſt buye on the ſouth ſide of Bornerif, run alongſt to the ſouthwards of it, keeping the Cape and ſteeple one over the other, untill you be paſt the ſecond buye, which lyeth thwart of the weſt-end of Kamper-ſand, the farewaye betwixt theſe two buyes is 5 and 6 fathome deep.

Koggedeeps ground. Kamper-ſand.

Being paſt the ſecond buye, bring the ſteeple ſomewhat to the northwards of the Cape, and goe on e. n. e. towardes the third buye upon Gerriſhonden, for to avoide the plate which lyeth off from the ſouth-ſide, towardes Borniff, on it lye two white buyes, the firſt over againſt the a foriſaid third black buye, the other over againſt the fourth black buye, lying from the third about ſoutheaſt, leave the black buyes all on the larboard ſide, and the white on the ſtarboard ſide, and run through ſo betwixt them both, the plate is on the north ſide indifferent flat, ſo that you may run to it upon the lead, reck on wel your tydes, eſpecially be carefull of a fore-ebbe, which falleth very ſtrong over that channell north northweſt into ſea over Bornriffe. Betwixt the ſecond and third buye in the fareway it is eight and nine fathom. Betwixt the third and the foreſayd plate ſeven fathom. Being paſt the fourth buye, both ſides are very ſteepe, & the fareway 8, 9, 10, and 12 fathom deepe, goe then in ſ. ſ. e. untill that the ſteeple of Holm come over the ſ. point of Ameland were the boars lye, & then you come in the bight, where it is on the ſ. ſide flat, and good anchooring in 5 or 6 fathom, the north ſhoare is very ſteepe.

Gerriſhonden

For to ſaile further into Horſen, goe away from the higt e.n.e. alongſt by the ſouth-ſide in 5 or 6 fatum, ſo long untill Heynooms chamber (being a red tyled houſe) come a handſpikes length to the northwards or to the eaſtwards of Hoelm-church, anchor there in 5 or 6 fathom, you ſhall lye there in good ground, & ſheltred for all winds, alſo there goeth little tyde; in this fareway it is 12 fathom deep, the north ſhoare is the very ſteep. Theſe foreſaid depths (like as alſo thoſe of the Flie) are ſaid of low water.

Of



Dollart

Duytsche mylen 15 in een graet

Eng en Fra mylen 20 in een graet

GRONNINGER LANT

OOST-FRIESLANT

Eemden

Norden

Oosta Eems

Pascaarte vande

EEMSEN

Als de oude ofte weester Eems en de oosster Ems

Sommige namen op de Eems met letters aengeteeckent

A	de Wolden	L	de Breehalge V. te Schelpen
B	De nieuwe Gaet op Borckom	M	de Inins
C	Burtke op de hoge hoern	N	Norder watt
D	de Weester Eems	O	Borckumer riff
E	t'Vloyen diep	P	Luster riff
F	de Buiters balge	Q	Ton voor de Bants hoeck
G	Ittemer balge	R	Reyder sant
H	de Weester balge	S	de Baey
I	de Bant balge	T	de Hont
K	de Leye	V	Pilsumer watt
L	de Bremer balge	X	de Snayne rugge
M	t'Gatum	Y	de Contre plate
N	Dorcke hoeck	Z	Coppers sant
O	Ruth	a	Memer sant
P	Eems balge	b	Reshummer Hoeck
Q	de Bancks	c	Brouwers plaet
R	Eems gat	d	Muyhers plaet
S	Schouwer Legers gatt	e	de Meurren sant

Namen van sommighe plaetsen in het Vlie met letters aengewesen

a't Robbegat	d Vroo de Sloot
b Speckhoeck	e de Letting
c Noorder Letting	

FRIESLANT

Harlingen

DERSCHELLING

VLIELANT

Pascaarte van't

VLIE,

Als mede een gedeelt van t Amelander gat- t Amsterdam.

By Iacob Theunisz opt water in de Lootsman.

Duytsche mylen 15 in een graet

Eng. en Fra. mylen 20 in een graet

Pascaerte vande

EEMS. ELVE.

Weser. Eyder. en de Hever: als mede hoe die selvighe gaten van Heylighelant gheleghen syn.

t'Amsterdam.

By Iacob Theunisz op 't water inde Lootsman.

Namen sommiger plaetsen op de Iaa en Weeser met letters aengetekent

a De Steenbanck
b Bakens op Burt
c Aemen of Leppe plaet
d De Iaa tan
e Ton op't Hooft
f Ton uyt Coers
g Mellem ton
h Ton op Bollensyl
i Bakens op Bollensyl
k Eerste ton op t'Vlack
l Het Vlack
m Cappelmans sant

Op de Elve

a De Schorton
b Coolton
c Witte ton op de wieuwe gronden
d Hoeck ton
e Roe ton
f Witte ton op de Steert van Roomaerden plaet
g De tonnen op Pelgroms sant

Op de Eyder

k De witte sse Eyder ton
l Ton op de Hont
m Bakens op de Hont
n Twee Neesbrick
o Bakens op de Weser Neesbrick
p De prijme de Elve
q Hoedemer sant
r Eylandeke Bulhooftden
s Baken op de Hulck

KEYDIN

GERLANT

HOLLATIA

EMDE

Bilteum

't Veer

Nieu zyl

Hoeck zyl

Eouck zyl

Garmer zyl

Hammerschied

Menserkerk

Ost

Lanewoerde

Weshuert

Bollensyl

Mussehwarde

Ollenbroeck

Groin

Rollaken

Pelworm

Lootsman

Middelplaet

Noorder Brechdijck of wester Til

Noorder Elf

Vogelsant

Noorder Gronden

Vlacte vande Noorder gronden

Mildorp

Ziegster Dyp

Noorder Dyp

Busen

Ollenworde

Dimars

Wisingbuere

Noordbys

Blauoort

Steert of vlacte van Blauoort

De Eyder

Scholvershoec

Heylige sant

Schulper zyl

Tamingen

Ees

Toenningen

S. Picter

EYDER

Garrebleck

Gardingen

Suyderbys

Oester Hever

Husum

Hattstede

STEDT.

Namen sommigher plaetsen op de Scholhalch. Lauwers ende Schille

a t Hoge sant
b de Peerdemarckt
c de Knockeldijgh
d Symons sant
e Bosch sant
f t Schilt
Legragat
Steertvoor legersgat

Groeninger
lande
FRIESLANT
Oostmerhorn
Emden
Norden
Ostfriesland
Borcum
Juist
Baltrum
Langeoog
Spiekeroog
Wangerooge
Wangerooger Siel
Harlingerland
Esens
Ostfr. Ems
Dollart
Reide
Oterdum
Farmsum
Delfzijl
Lens
Kolhyrde
Bierum
Uithuisen
Rysum
Greetsiel
Pilsum
Schoonorth
Ihlow
Ihlower Siel
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Of the Tydes.

At Amſterdam a n. e. and ſ. w. Moone maketh the higheſt water.
At Horne, Enckhuyſen and at Utrck, a north & ſouth Moone.
Betwixt Cripple ſand and the Creyl, a n. & by w. & ſ. & by e. Moone.
Upon the Frieſe and Wieringer-flat, a n. w. and ſ. e. Moone.
In the Flye and Ameland Gat a ſ. e. & n. w. Moon maketh high water, before the Flye the flood falleth to the eaſtwards thwart over the grounds, almoſt untill halfe flood before it ſetteth into Boomkens Gat. Likewiſe the Ebbe to the contrary falleth to the weſtwards thwart over the grounds, almoſt until halfe Ebbe, before it ſetteth rigt out at the channell. The after-flood turneth about with the fore-ebbe & fal alongſt Flyeland out at Storte-melck, but the foreflood runneth rigt into Storte-melck.

Of the Depths about theſe Places, and in what Depths men may ſee the Land.

The Iſland Flyeland, the Schelling and Teſſel, men may ſee in 15 & 16 fathom. Thwart of the Schelling the ground is white ſand.
The ſteep grounds or Peterſand & Born-riffe, are very ſteepe on the off-ſide, cloſe by them it is 12 or 13 fathom deepe.
Ameland men may ſee in 12 fathom, the depth of 13 and 14 fathom runneth farr off to Seawards, ſo that men cannot ſee it in 15 fathom.

Courſes and Diſtanſes.

From the Flye to the Naes, north & by eaſt a litle eaſterly about 85 leagues
From the Flye unto the Riffe in 16 fathom north and by eaſt 66 or 67 leagues
From the Flye to Boevenbergen, the courſe is n.n. e. or a little more eaſterly about 69 leagues
From the Flye to Rinkopper or Numer-deep, n. n. e. or a little more eaſterly about 58 leagues
From the Flye to the Iſland Silt, on the Coaſt of Jutland, the courſe is northeaſt 46 leagues
From Born-riffe to the Naes, north or a little more eaſterly 82 leagues
From Born-riffe to Holy-land n. e. and by eaſt 30 leagues
From Born-riffe to Wranger-oogh, e. n. e. 27 leagues
From Born-riffe to the Weſter Eems 12 leagues
Peter-ſand, or the ſteepe grounds & Born-riffe, lye n. e. and by eaſt, and ſ. w. and by weſt foure leagues a ſunder.
From the Flye to the northeaſt-end of the Broadfourteens, the courſe is w. n. w. 8 leagues
From the Flye to Tinmouth or New-caſtle, w. n. w. 88 leagues
From the Flye to Hitland, the courſe is n. w. and by north, ſomewhat northerly 156 leagues
From the Flye to Fairehill, n. w. and by north about 151 leagues
From the Flye to Schuytenes, the courſe is north and by weſt, ſomewhat northerly 106 leagues.

How theſe Lands doe ſhew them ſelves at Sea.



Thus ſheweth the Schelling, when you ſaile alongſt by it about 2 leagues from the land.



Thus ſheweth Flyeland, when you are 2 leagues thwart of from it.



Ameland ſheweth it ſelfe thus, when you are 2 leagues thwart off from it.

The ſecond Demonſtration,

WHERE IN

The Scholbalgh, Lauwers, both the Eemſes, the Weſer, the Elve & the Eyder, and other channels of the Sea betweene them.

Schiermonck-oogh.

SChiermonck-oogh lyeth from the eaſt-end of Ameland eaſt ſomewhat northerly 3 leagues, it is a little low plaine Iſland, about 2 leagues long, there ſtandeth no ſpeciall thing upon it to beknowne, but upon the weſtend two capes with a white ſand-hill, otherwiſe it is all with low blackiſh ſand-hils or hommocks (but higher then upon the eaſtend) and meingled with wite: the eaſt-end is a long flat ſtrand, with little low roug ſand-hills. When you bring the two capes upon the weſt-end one in the other, and runne ſo in, you ſhall finde the outermoſt buye, which lyeth without the channell, at ſea, in 7 fatum or there abouts. Sometimes there lye two and ſometimes three buyes in the channell, which you muſt leave on the ſtarboard ſide, and run alongſt to the eaſtwards of them, being come within the channell, you ſhall find alſo beacons on the weſt ſhoare, which you muſt follow all along, until you come to Oſtmerhorn, where you may anchor. The lying in, and depths of that channell do alter and ſhift oftentimes, and ſometimes much within a ſhort time, ſo that there is no certaintie to bewritten off it, where unto men might truſt.

Rottum.

Foure leagues to the eaſtwards of Schiermonck-oogh lyeth the Iſland Rottum, and betwixt them the little Iſland the Boſch. Afew yeares paſt throug, ſetting of ſpyrie graſſe or heath, there was grown two or three handſome ſand-hils, but are now againe altogether blowne away, and altered into a plaine flat ſtrande, which the ſea at high flouds doth al together runne over.

Betwixt theſe Iſlands the Boſch and Schiermonck-oogh was woont to goe in a channell of indifferent depth, called the Lawers, which is now moſt caſt to, by the foreſaid ſtrand of the Boſch, which is grown in all alongſt unto the oogh, ſo that there is no more remaining then a narrow & ſhoale creeck.

To the eaſtwards of the Boſch goeth in the Schille, alſo an altering & uncertain channell, which is ſometimes depe and ſometimes againe ſhoale, and the channell ſhifteth to and againe, ſo that there is no certaintie to bewritten of it, where unto men might truſt.

The Iſland Rottum is a little Iſland, about a league and an half long, and very eaſy to beknowne, the weſt-end is hig and ſteep, the reſt is low land, with ſome little ſand-hills. Upon the eaſt-end ſtand two capes, the greateſt or the runner ſtandeth upon the eaſtend upon the flat ſtrand, the ſmalleſt on the ſouth-ſide of the ſand-hill. There ſtand alſo two Houſes upon it, the one upon the weſt-end, the other in the midſt of the Iſland in a valley.

Borckum is alſo an Iſland eaſy to beknowne, two great leagues long, it ariſeth commonly (when you come in out of the ſea) in three parts, as if it where three Iſlands, when you come from the weſtwards it ſheweth it ſelf in foure parts, for with hig flouds the water runneth throug in three places. The Worthy Counſell of Embden hath cauſed to be ſet upon the weſt-end a high thick ſteeple, which men may ſee far off at ſea, on the weſt-ſide of that ſteeple ſtandeth a little low Church. Borckum.

From the weſtend of Borckum ſhoteth off a riffe, a great wayes into ſea, called Burckum-riffe; to the ſouthwards of it, to witt betwixt Borckum & Rottum goeth in the Weſter Eems, which is the verie beſt channell that lyeth in all this Coaſt.

The Old or Weſterne Eems.

BRing the Capes upon Rottum together, and they ſhall then ſtand ſoutheaſt an, ſomewhat more eaſterly, if you come out of the ſea, ſayle reſolutely upon them, then ſhall you find the outermoſt buy, then ſhall you have the Tower of Borckum eaſt and more ſoutherly from you, and the weſt-end of Rottum ſoutheaſt and by ſouth, and lyes

Geltſax Plate. upon the taile of Geltſacks-plate, there is white buy with a little flagge, & lyeth upon 6 fathom with low water, & is marked in the Card with the letter *a*.

From the firſt to the ſecond, the courſe is ſ. e. & by ſouth, is marked with letter *b*, and is the firſt black buy upon 7 fathom on the ſouth ſhoare, let this buy in your ſailing in lye on your ſtarboard, and the white on your larboard, then have you from this foreſaid black buy, the Tower upon Borkum eaſt and the Capes upon Rottum ſ. e. & by eaſt from you, from the firſt black buy to the ſecond, third and fourth buy marked with the letters, *c*, *d*, *e*, your courſe is eaſt and by ſouth.

Comming from the weſt neere the Lauwers of Boſſand, keepe the ſtroake of the ſhoare upon 5 fatom, till you are paſt it, ſaile then freely eaſtwards on, ſo ſhall you run within throug Geltſacks-plate in 4, 5 & 3 fathom, afterwards on 8 fathom, and ſo come by the fourth black buy, which lyeth in 4 fathom.

Borckummer Riffe. The Borckummer-riffe commeth on from without and is flat on the end, when as the Capes upon Rottum ſtand ſ. e, of then come you over the riffe, and ſhall come upon the taile of the riff with low water with leſſe then 7 dutch ells depth op water, for it is flatte and broad, on the inner-ſide, it is very high and ſteep, and ſhootes with a breſt inwards but you may caſt your lead well upon it.

From the fourth by till within the bending of Rottum the courſe is e. ſ. e. is marked with *f*, and lyeth upon 7 fathom, from this to the buy upon the hig plate & is the ſixth buy marked with *g*, and lyeth upon 7 fathom, as alſo to the Huyberts buy *h*, the courſe is eaſt and by ſout, when the Cape upon the ſouth-ſide and the Tower come together they ſtand ſ. ſ. w. from one another, ſo are you even with the outermoſt Huyberts buy, goe then e. ſ. e. on to the innermoſt Huyberts buy marked with *i*, which lyeth alſo even as the firſt Huyberts buy in 6 fathom, upon the weſt-ſide of theſe buyes you have Huyberts plate, which is now devided from Huyberts ſand, and you may under ſaile it with low water, and is in the fareway 12, 13 & 14 fathom deepe, from the innermoſt Huyberts buy marked with *i*, to the buy before the Watt, called Steven Janſz buy, marked with *k*, the courſe is ſ. e. and lyeth on 8 fathom *k*, comming alongſt by the buy on Huyberts plate, you muſt leave Borckum a little that ſo you may ſhun the Mieuwen tayle which ſhooteth from off the Wolds or the ſouth-end of Borkum, this you may under ſaile upon 5 fathom, when you come inwards.

Steven Janſz Buy.

Mieuwen-tayle.

Weſtwards from Steven Janſz buy ſtand 5 Beakons a little to the ſouthwards there goeth the Watt in n. and by eaſt, almoſt as far from Steven Janſz buy as the innermoſt Huyberts buy lyeth from Steven Janſz buy, there ſhooteth out alſo an out corner or riffe called Ranſel, but you may under ſaile it upon 5 fathom, the marks of this channell and how to ſhun the taile or Ranſel are theſe upon the ſouth-end of Borckum lye two little downes, called the Wolden, keepe the tower of Borckum on the weſt-ſide of thoſe little downes, ſo ſhall you not ſayle upon the Ranſel, in this channell it is deep 9 & 8 fathom.

Ranſel.

From Steven Janſz buy to Doecke buy *l*, the courſe is e. ſ. e. there find you (ſouthwards from this buy) a beakon *m*, called Ruyte-baken, this buy lyeth upon 5 fathom, and in the fareway you have 7 fathom deep, the flood falled very ſtrong behind this buy into Doecke-gat, whereof you muſt beware, from the buy with the Doeck to the Camper buy the courſe is e. ſ. e. marked with *n*, from thence to the buy of Eemshorn marked with *o*, the courſe is ſ. e. lye both upon 5 fathom in the midſt of the farewater it is 7 fathom deep, the marcks of the Eemshorn buy are theſe, when the Cloyſter of the Dam (being a flat Church) commeth together with Holdwijck then have you the length of the buy; theſe marcks ſtand then about ſ. & by w. from you, ſtretching out from the buy of Eemshorn you ſhall find on the ſouth ſhoare 5 beakons, ſaile about that from thence to the Groningerdike ſ. ſ. w. till you get the Church of Uytwyrde & the Cloyſter of the Dam together, run betwixt to the ſhoare of Delftſail, for being paſt the buy of the Doecke, then you muſt preſently ſound the weſt ſhoare as Otterdum in 5, 6 or 7 fathom, & come not neerer them, for it is very ſteepe, the eaſt coaſt in ſailing up you may hereabout ſound upon 6 fathom, behind a plate called the Hont, being a hard ſand, & ſomewhat more inward lyeth yet another plate called the Pape, alſo an hard ſand runneth throug betweene both the Kreekes, but the weſt-ſhoare is ſoft & clay ground as farre as Otterdum, you muſt keepe the weſt ſhoare and follow the beakons which ſtand alongſt the ſhoare this reach ſtretches ſ. ſ. e. and by weſt, and ſo in the bending alongſt ſ. ſ. e. & by the Groningerland ſ. e.

Ruyte Baken. Marcks of the buy of Eemshorn.

For to avoyd Reyderſand or Jannens ſand, that is a plate in the middeſt of the Eems, betwixt Otterdum and Reyde, where upon at low water it is 10 foote, you muſt looke out for Otterdum a flat Church, without a ſteeple, ſtanding in Groningerland on the dyke, when you come thwart of it, edge over to Embderland, to with, to the Knock, which is a ſteeple broked of, ſtanding in the water upon the point comming by the Knock, then runne within two cables length along by the north ſhoare unto Loegerhorn, and then you ſhall not fail to near the plate. There ſtandeth a flat ſteeple betwixt the Knock and Loegerhorne, called Gerrit-ſwaert, when you can ſee throug that ſteeple, or when that ſteeple and the Church come one to the other, then are you thwart of that foreſaid plate. Reyder

When you ſail up the Weſtern Eems, you muſt leave all the buyes on te ſtarboard-ſide.

A ſ. e. & n. w. Moon maket without the Eems the higheſt water. In the Balgh ſ. ſ. e. & n. n. w. Moone: Before the towne of Embden, a ſouth, or ſouth & by weſt, and a north or north & by eaſt Moone.

The Iſland Juyſt lyeth a great league, or a league & a half e. n. e. from Borckum, which is a litle low Iſland, the weſt-end is a hig ſteep point & gray land, the eaſt-end is higher then the middeſt. The Church ſtandet in the midſt upon the land; the ſteeple is ſomewhat ſharpe, & ſtandet at the eaſt-end of the Church for you cannot ſee the Church, but thwart of a low place or valley. Betwixt Borckum & juyſt goeth in the eaſtern Eems. From the weſt-end of Juyſt lyet of a riffe 2 leagues, or 2 leagues and a half weſt into Sea, on the of ſide you may ſound it in 3 or 4 fathom, to the ſouthwards of it goeth in the eaſtern Eems. Iſland Juyſt.

The Eaſterne Eems.

RUn upon the grounds of Borckum in 5 fatum & ſet the Tower of Borckum with the New Cape (which is of late there made) then will they ſtand ſouth from you, of if you come from the weſt then keepe the Tower upon Juyſt eaſt & eaſt & by nord from you, ſo ſhall you find the firſt or outermoſt buy in 5 fathom, from the outermoſt to the ſecond the courſe is eaſt & by nord, from the ſecond to the third e. ſ. e. they lye all in 5 fathom in the fareway, it is 5, 6, 8 & 10 fathom deep.

The end of the Juyſter-riff, betweene the outermoſt & the ſecond buy is upon the innermoſt-ſide of extraordinary ſteep and riſing up, that you cannot ſound upon it, but more inwards from the ſecond buy it is flatter, there is good ſounding ground, the third buy lyeth upon the point of Brewers plate on the eaſt-ſide of Borckum which you may under ſaile, the taile is on the north-ſide very ſteepe, from the third buy ſaile yet eaſt ſoutheaſt on till you come even with the beacon upon the Hooge-Horn, there is a good roade upon 5, 6 or 7 fathom, and good lying for a ſouth wind, then with a flood you muſt goe on eaſt and ſomewhat more northerly that you may ſo ſhun the point of the foreſaid Brewers plate, the Juyſter riff is inwards from the ſecond buy flatt, ſo that you may ſound in five or ſix fathom, when you are a little eaſtwards the third buy, goe then ſ. e. on: the Eeaſtern Eems is there about wide and broad. The eaſt-end of Borckum is flatt, then you muſt not forget to ſound when you ſaile out or with a ſhip that draweth much water, and if it bee with a ſoutheaſt courſe then come you upon the Conings-plate upon the point or taile of which lyeth a buy, and upon the Plate a Beakon, this buy and Beakon you muſt bring on your ſtarboard. To the north in Eaſt-Frieſland ſtand two Towers one by another of which the one is ſtumpy and great, and the other low & ſmall, when theſe Towers come with the north- Brewers Plate. Conings Plate.

north-end of Band a little Iſland upon the WATT even one with another, then have you the buy upon Koningsplate they are good longſt Marcks, & when Juyſter Tower commeth n. n. e. from you, they are good thwart Marcks of the ſame buy.

From the buy upon the Konings-plate to the buy upon the Weſternbalg, the courſe is ſ. e. untill you get the two Capes upon Band together, that is the Buy ſ.ſ.w. from you, from the firſt buy upon the Weſternbalg to the ſecond, the courſe is ſ. w. even as the whole Weſternbalgh is, you ſhal not miſſe (if you kepe bot the Capes upon Band together) to run out of the Balgh but at laſt a little more weſterly.

From the Balgh beakon to the beacon upon Eems-horn the courſe is ſouth and north, to ſaile throug the channell from theſe beacons forth to the Cnock, the courſe is ſ.ſ. e. from thence to Loegen eaſt.

About a half league within Juyſt, betwixt the beacon upon the hig Horne, & the buye upon Kings-plate on the
Memer Balgh. eaſt-ſide of the Eaſter Eems lyeth Memer-balg. It lyeth in moſt north, that is a good road for ſmal ſhips that are bound to the weſtwards or out into Sea. Within the Balg he that runneth by the high Horne ſhall finde good road for ſmall ſhips, that are bound to the eaſtwards, which lyeth in ſouth.

Comming from the eaſtwards, you may ſound Juyſterriff which is flat on the off-ſide, without, in the point of the riffe is a ſhoare or Deadbalg, with two points, betwixt them it is 3 fathom and an half deepe.

A ſ.ſ. e. and a n. n. w. Moone maketh (without in the Eaſter Eems) the higheſt water.

To the eaſt of Juyſt lyeth Buys, the ſhorteſt and ſmalleſt Iſland that is upon all this coaſt. It riſeth up in two Hommocks, where of the Hommock, which is the moſt eaſterly is the higheſt and ſharpeſt.

Buys-deep. Betwixt Juyſt and Buys goeth in the Buys-deepe: the Wor. Counſell of Embden was wont to ſet it with Buyes, but it is done no more, in regard it doth ſo oftentimes ſhift.

Nor-derny. Two great leagues to the eaſtwards of Juyſt lyeth Norderny, betwixt them both lyeth that litle Iſland Buys. Norderny is to beknown by a broad flat Tower, which ſtandeth upon the weſt-end, but ſometimes men can hardly perceive it. About the midſt of the Iſland, neareſt the eaſt-end lyeth a hig white ſandhil, thereby it is beſt to beknown. Further the land is full of Hommocks. Betwixt Norderny & Buys goeth in a channel, called the Norder-deepe or Norderny.

Bal-trum. A great league to the eaſtwards of Norderny lyeth the Iſland Baltrum, which is about 2 leagues long, a litle ſhorter the Norderny. Upon this Iſland ſtandeth no ſpeciall thing, where by men may know it: but upon the eaſt-end a hig ſandhill, which is ſharp a bove, the weſtend is low ſandhils. When the foreſaid hig ſand-hills is ſ. e. and by eaſt from you then it is round to ſee to: Upon the weſt-end there goeth a ſwamp through.

Which-tery. Betwixt Baltrum and Norderny runneth in a channell, called the Whichterye, there is no certainty to bewritten of it that men may truſt to, ſometimes there is 2 fathom water and more, and ſometimes no more then 4 or 5 foote.

The Iſland Langeroog lyeth a league to the eaſtwards of Baltrum, which is 4 great leagues long, and hath on the off-ſide a faire ſtrand and three or four ſand-hills, where by men may know it, which lye from about the middeſt of the Iſland unto the weſtend, a good wayes one from the other, the tops of them are playne and flat. Betwixt Langeroogh
Acumy. and Baltrum goeth in the Acumy, where in lye two buyes. It is no channell for great ſhipps, it lyeth out alongſt by the foote ſtrand of Langeroogh, firſt northeaſt, & then ſomewhat more eaſterly, but it is not to betruſted to, becauſe it altereth and ſhifteth very often.

Spyc-keroog. Betwixt Langeroogh & Wrangeroogh lyeth the Iſland Spyckeroogh, which is about a league long. At the eaſt-end there was wont to lye a little Iſland eaſy to beknown, called luttick Spyckeroogh, which is now altogether gone. Upon Spyckeroog ſtandeth nothoing, where by men migt know it, but it is a black land with Hommocks & Nobbes, like to the other Iſlands. Betwixt Spyckeroogh & Langer-
Oxe-balgh. oogh goeth in the Oxebalgh.

Wran-geroog. Wrangeroogh lyeth two great leagues to the eaſtwards of Langeroogh, which is a great league long, being a little plaine white Iſland. Upon the eaſtend lye hig broad white ſandhills. Upon the weſt-end the Farle of Oldbourg hath cauſed to be made great thick Tower with two ſpires, when they ſtand one rigt in the other, then you are by the outer-buy of the Weſer; the a foreſaid Tower men may ſee two kennings of at Sea. Betwixt Wrangeroog & Spyc-
The Harrel. keroog goeth in the Harrel, about ſ. ſ. e. but it is not to beſtruded becauſe it ſhifteth very often.

The Acumy and Harrel are ſet both with buyes by the Wor. Counſell of Embden: Theſe Channell ſerve not but for ſmal ſhips, like as all the other, lying betwixt the Eaſtern Eems and the Weſer.

The land lyeth from Bornriffe to Wrangeroogh e. n. e. and w. ſ. w. 29, or ſome will have it 30 leagues.

For to ſail into the Jade or Weſtern Weſer with a ſoutherly winde, runne to the ſtrand of Wrangeroogh in 4 fathom, with a weſterly winde runne no further then 5 fatum & lead it in ſo by the ſtrand of Wrangeroog in 4 or 5 fatum, untill you come a good wayes within, or to the end of fote ſtrand of Wrangeroogh, there you ſhall finde the firſt buye in 5 fatum at low water; Menſer Church ſhall then ſtand ſouth from you. Thwart of this firſt buye the redde ſand is very ſteepe, which you muſt leave on the larboard ſide, and the buye on the ſtarboard ſide, when you come in. Thwart of this firſt buye commet a tayle, ſhoting off from the ſouth ſhoare, that is the innermoſt point of the Stonebalg, which men migt at unawares ſail within, in 3 fathom & an halfe, or 4 fathom, the firſt buye is layd upon the point of this tayle. The Stonebalg goeth into the eaſtwards of Wrangeroog the ſouth-ſide whereof is ſteep, but the north-ſide flat, which men may ſouud. In this Balg it is 10 foot depe at low water. From the firſt buye to the ſecond, and alongſt to the third, the courſe is eaſt, the ſecond buy lyeth in 2 fatum & an half. The third, that is the Jade buye, lyeth in 3 fatum, upon the ſhoaleſt of the Higwaye. It is very uneven betwixt the firſt and the third buye, you ſhall get wiſe depth of 5 or 6 fatum and then again 2 fatum, or 2 fatum and an half.

For to ſaile from the Jade to the Weſer, then ſaile by the third buy over the ſhoaleſt of the Higway on e.n. e. to Mellembuye, & you ſhall finde at low water upon the foreſaid ſhoaleſt place, or by the third buy, no more water then 9 or 10 fote, and being over there you ſhal get againe deper water, & then you are in the Weſer: Reckon wel your tydes, for the ebbe falleth very ſtrong n. n. w. out at the Jade, & the flood to the contrarie, very hard inwards, ſo that you can hardly ſtemme the tyde when the weather is ſomewat calme, where of you muſt be very carefull.

For to ſaile up into the Jade, leave the foreſaid third buye on the larboard ſide, & go from thence moſt ſouth up unto point of the Dycke, called Hormerſcheel, when you are come by the Dycke, there the Jade is wide and broade, without the foreſaid Dycke ſtandeth a beacon or two, for ſhipps that are bound over the Watt: If you will ſaile further up into the Jade, then keep the weſt ſhoare, untill you come thwart of the Church without a ſteeple with ſtandeth by the Dycke, there you muſt leave the weſt ſhoare, becauſe of the Aenten, or Jeppe-plate, which ſhoteth off from the Veer, alongſt the weſt ſhoare, and ſometimes lyeth drye at low water. The weſt ſhoare lyeth moſt ſoutheaſt ſomewat ſoutherly.

A ſouth & north Moon maketh the higheſt water upon the Jade, and it floweth with an ordinary tyde 2 fatum and an half up and downe.

The Weſer.

FOR to ſaile up the Weſer, come no nearer Wrangeroog then 7 fatum, being in 7 fatum, then edge of from the ſhoare into 11 fatum, and you ſhall there finde the firſt buye at the comming into the Weſer, lying in 7 fatum upon the taile of the Redſand, Menſer Church (that is a flat Church without a ſteeple in Vrouwkens-ſand) is then ſ.ſ.e. from you. Being thwart of the firſt buye, & that the weſtend of Wrangeroog is ſ. ſ. w. from you, then you runne over the taile of the Redſand in 5 fathom.

From the outermoſt-buy to the ſecond, third, fourth & fifth,

fifth, the courſe is due eaſt, which lye all in 7 fathom the ſouthſide (to wit the Red-ſand) neareſt each a poynt different from Menſer church, ſoo that Menſer church lyeth from the ſecond ſ. & by eaſt from the third ſouth, from the fourth ſ. & by w. and from the fifth ſouthſouthweſt. The fifth buy is called the buy upon the Head, for to know that from all the other buyes, there ſtandet a ſtaffe upon it of a halfe fathom long, with a withte knotte upon it. Over againſt the buye upon the Head lyeth a white buye on the white grounds. Betwixt all the foreſayd buyes you muſt reckon wel you tydes, flood commeth out of the n. weſt, and falleth alongſt over the Red-ſand, and the ebbe the contrary. The right deep thwart of theſe foreſaid buyes, in the comming in is 11 fathom, but thwart of the buye upon the Head, five fathom at low water.

Middle Plate. Right before the Weſer lyeth the Middel-plate, the Eaſtermoſt of the Inner-ſide beginnet right to the northwards of the buye upon the Head by the white grounds, and lyeth alongſt the reach of the third buye, to reckon from without, & is on both ſides flat for to ſounde about. On the weſt ſide of the foreſayd plate lyeth a white buy about from Menſer Church, which you muſt leave in comming in one the larboard-ſide.

For to ſail from the buye upon the Head, out again to the eaſtwards of this plate unto the Elve. Then ſoud it out about the white grounds, in 4 or 5 fathom, untill you be out in the Sea.

For to ſayle further up into the Weſer, the courſe from the buye upon the Head unto the ſixth buye is ſ. e. & n. w. Menſer Church ſhall then lye from you ſ. w. and by ſouth, the Weſer is thwart of it about 20 fathom deep. From the ſixth Buye to the ſeventh, that is, the Buye upon the cours, or the Wapper-buye, or the ſouthweſt-buye, becauſe Menſer Church lyeth ſ. w. off from it, the courſe is ſ. e. The Jade-Buye lyeth abouth ſouth, or ſouth & by weſt from this Buye. From the Buye upon the Cours unto the Mellem-Buye, the courſe is yet ſ. e. which you migt ſayl within at unawares in 6 fathom. Menſer Church lyeth off from it ſ. w. and by weſt. From the Mellem-Buye to the Buye upon Bollen-ziele, the courſe is ſ. e. ſomewhat eaſterlye; you muſt reckon your tides there verye well, becauſe the floude falleth exceeding hard into the weſt ſhoare. Langworder Church lyeth right ſouth & by eaſt from that buye upon Bollen-ziele, over againſt it upon the point of the black grounds lyeth a white buye, come nearer to it at half floud then 4 fathome and an half, you might unaware ſayl within that point (in ſaylingh in) in 4 fathom. From the buye, upon the Bollen-ziele to the beakon upon Bollen-ziele the courſe is ſ. ſ. e. or ſ. e. and by ſouth. Langworder Church lyeth about ſouth from that beakon, you muſt leave it on the ſtarboard-ſide, comming in within that beakon upon Bollen-ziele is a good roade for a weſterly winde. From the beakons upon Bollen-ziele to the firſt buye upon the flat, the courſe is ſ. e. till you come ſomewhat beneath the beakon, & then alongſt e. ſ. e. The marks of the firſt buye upon the Flat is, when you can ſee throug the Belholes of Langworder ſteeple, then you are thwart of the firſt buye, Langworder Church is then from you ſomewhat more ſoutherly then ſ. ſ. w. From the firſt buye upon the Flat ſecond, the courſe is e. ſ. e. Betwixt theſe two buyes ſtande five beakons on the larboard-ſide, upon the black grounds. From the ſecond buye upon the flatt to the Meyland, the courſe is ſ. e. and by ſouth. Being come thwart of wadnis or the Meyland, ſail then cloſe alongſt by the green ſhorre untill you come within Blixem, there is the roade for great ſhips that are bound to Sea.

Buye upon Bollen-ziele.

Like as upon the Jade, ſo alſo upon the Weſer a ſouth and north Moon maket the higheſt water, it floweth there alſo 2 fathom and a half up and downe.

South-ground. To the eaſtwards of the Weſer lye the ſoud-grounds of the Elve, there go in 2 faire deep Balghs or Creeks of 11 12 & 13 fathom. The Til, called alſo Brodbalgh, is the weſtermoſt, & lyeth ſo far to the weſtwards, that men can but even ſee the New-worke from thence.

If it ſhould happen that comming to the eaſtwards of the Weſer, you ſhould be beſet upon the ſouther grounds, being at leſt ſhoare, & be in danger, then ſaile to the ſouth grounds in 4, 5 & 6 fathom, but not much nearer alſo, for they are ſomewhat ſteepe. When you (running ſo along by theſe grounds upon the ſame courſe) ſhall get 8, 9 yea 10 or 12 fathom ſoft ground, then that is certainly of the Broadbalg or Weſter Till, take then the ſounding of which ſide that you will, and ſound it about by the grounds in 4 or 5 fathom, & you ſhall finde amongſt the ſands ſmooth water, and good roade, & may lye ſheltered for all winds. The weſter Till lyeth in firſt e. ſ. e. alongſt by the north ſhoare it is deepeſt, on the ſouth ſhoare you cannot ſail witin any tailes in ſailing out, but you may ſailing in: when you come ſomewhat further in, lyeth up more to ſouthwards: there are divers Balgs or channells, where men may ſaile throug that are acquainted. Weſter Till.

The Eaſter Till or Broadbalg lyeth betwixt the Weſter Till and the Houtbalgh, which runneth in 7 fathom into the eaſtermoſt point, (or the old Schorhorn) that is a taile which lyeth off a good wayes, and which you migt at unawares ſail within in 7 fathom comming from the weſtward. This Till lyeth in alſo (licke as the other) firſt e. ſ. e. but a little further in more eaſterly. Here alſo you may rake ſounding of which ſide or ſhoare that you will. Eaſter Till.

Being com within, you ſhall get ſmooth water of the ſands for all winds. In this channell is not leſſen then 7 fathom water.

The Houtbalgh lyeth rigt into the weſtwards of the Steep buye or Schornhorn. If you will goe in there with ſmall ſhipps for to ſayle over the Wadt into the Weſer, then goe (when you have the Steepe buye) in ſ. ſ. e. The Houdtbalgh is without indifferent wide, keepe that courſe, untill you come thwart off the beakons, which you muſt leave on the ſtarboard-ſide, you moy well ſound in about the off-ſide of the Schor-horne, but not the weſt-ſide, by it lye plates which you migt ſaile foule of in 9 fathom, in comming in, but on the Schor-horne you cannot doe amiſſe. Houd-balgh.

Holy-Land.

THE Iſland Holy-land, & the outermoſt buye in the Weſer, lye one from the other, ſout ſomewhat weſterly, and north ſomewhat eaſterly. When it is cleare & good ſight, you may ſee Holy-land, when you ly in the Weſer, by the buye upon the head Holy-land and Bornriffe lye one from the other ſ. w. and by weſt, and n. e. and by eaſt accordingh to the common opinion, 32 leagues. When you come from the weſtwards and begin to get Holy-land in ſight, it ſheweth it ſelfe with a high treddiſh ſteep point, which is flat above. For to anchor or make roade under Holy-land, comming from the weſtwards, then runne to that land in 10 or 12 fathom. When you ſayle towards the ſouth-point, and come ſomewhat near the land, you ſhall eſpie a rock, like unto a ſmall Tower, cloſe by the hig land, called the Monck, which is almoſt ſo high as the hig land. About ſ. ſ. e. an Engliſh mile, or a little more from that rock under water. If you keepe your ſelf in 8 and 9 fathom, then you run without this rock, and cannot take any hurt of it. When the Monck is covered of the outher land, then you are thwart of this ſuncken rock. When the foreſaid Monck cometh a handſpikes length, paſt or without the other land, there is the road, & good anchoring in 10 or 11 fathom; the ground is there faire and cleane, except it be of wracks of loſt ſhips, or loſt anchors, which are there maine. Lying there in 9, 10 or 11 fathom, you have ſhelter for a w. ſ. w. n. w. & north windes. From the point where the Monck ſtandeth by, ſhooteth off a little riffe from the ſhoare, which men may ſound in 3 fathom, you may alſo runne in 5 fathom from the ſhoare, and ſaile cleare of the foreſayd ſuncken rock, to with, through betwixt the ſuncken rock, and the little riffe: but if yon runne into deeper water, to with, in 7 fathom, you ſhall runne right upon the ſuncken rock. In 8 or 9 fathom you doe runne about without the ſuncken Rock.

From the north-ſide of Holy-land lyeth off a ſilthy Riffe, almoſt a league into ſea, ſo that you cannot come neare the whole north-ſide, then in 9 or 10 fathom. If you will

will goe about to the northwards of Holyland, being come so farre that the east-end of Holyland come to be south & south & east from you, saile then freely unto the Scholvers-point, that is a flatt point, which you may sound in 5, 6 & 7 fathom. If so be that you will runne in 8 fathom of from it, you shall runne above two great leagues from the shoare. The right fareway betwixt the Hever & Holyland, is not more then 9 or 10 fathom deepe. When you come about the point to the roade, & that Scholvers-point lye n. e. and the Rock s. w. from you, there is good lying in 5 fathom.

ul- se- point.

South-haven.

Scholvers-point is the point where the South-Haven lyeth within, which lyeth from the hig land about east into Sea. From the outermost-end of Scholvers-point lyeth a banck of 3 fathom, unto the point where the Monck also standeth, within it is very good lying for ships of little draugt, that is called the South-haven of Holyland. A s. s. w. & n. n. e. Moone maketh there the highest water.

Of the Elve.

THE Roade of Holyland, & the outermost buye of the Elve (called the Schortunne or the Steep-buye) lye s. e. and by east and n. w. & by w. 8 leagues asunder, which lyeth right to the northwards of the Schor-horn, that is the outermost-point of the New-workes ground, on the south-side of the Elve, the rigt deepe of the Elve runnet in alongst to the northwardes of it. On the north-side of the Elve lye the north-ground, which lye somewhat flat for of to seawardes upon the northwest-side. The south-end of the north-grounds, called Vogelsand, runneth from the foresaid buye a good wayes west & by north into Sea, with a narrow taile of perfect hard sand, about a halve league broad, which waxeth by little & little the farther from the shoare the deeper. Three leagues from the foresaide buye, there is upon it 11 fathom water, when you saile on north from the steep-buye, you runne over it in 3 fathom, or 3 fathom & a halfe, but it doth so ne againe in 5, 7, 8 & 10 fathom, soft ground, that is in the Creeke of the North-Elve. To the southwardes of that a foresaid Vogelsand, in the rigt fareway of the Elve (for him that commeth from the westwardes) it is also somewhat soft ground, and 14 & 13 fathom deepe, to the southwardes of it, towards the souther or Steepe-grounds, the ground is againe very hard, & the grounds very steep, you may not come nearer them (especially by nigt or darke weather) then 11 or 12 fatum, if you come nearer to them, you migt saile foule of the Wester-Till, or Souther-broad-balg, which runneth up to the southwards into the grounds to nothing.

Mirdle of Vogelsand.

North-Elve.

When you come from the westwards, and saile to the Elve, you shall finde betwixt Holyland and the Weser, and there abouts somewhat to the eastwards, depth of 20 fathom, untill that you come well halfe wayes to Holyland, toward the Steene-buye, then it doth begin to shoale from 18 to 16 & 14 fathom, close by the Steep-buye it is 12 fathom deep.

If you come by nigt alongst by the Steep or souther-grounds, with a southerly winde in 12 or 13 fathom, and goe on east & north you shall at last meer with the shoaling of the New-workes-grounds, rigt the northwards of the Hond-balg in 8 & 7 fathom, there you must then let fall your anchor, for to stay for the day, & you shall finde your self not farre from the Buye. With northerly windes you must anchor further from the south-shoare in the foresayd shoaling in 11 or 12 fathom.

To the northwards of the foresayd narrow tayle, or shoaling, which lyeth off from Vogelsand, runneth in a great Bigt or Slenck into the Norther-grounds, called the Norther-Elve, it is in the going in somewhat within so broad that you may there in turne to winde-wardes, but within it runneth narrow & sharp to; and at last to nothing, (ending allmost against the white-buye, which lyeth upon the Elve, upon the taile of the New-grounds) it is going in more then halfe wayes 13 & 12 fatum deep, & soft ground, very muchlicke the rigt Elve. It happeneth oftentimes by darke wether that the shippers (thinking that thy are entred into the rigt Elve) runne in there, sometimes with danger, especially with w. n. w. windes, for they must come out there back again. When you sail of from Holyland on e. s. e. you shall have depth of 12 or 13 fathom, being a league off from it, that you leese the white Cliffe out of your sigt, then you shall get one eve depth of 13 fathom, & soft ground, all alongst untill you come within the foresayd North-Elve. When you shall perceive that you are entred in there, you may (when the New-worke is more southerly then s. e. & by south from you) run alongst over the tayle of Vogelsand in 5 fathom, and so come against the Steep-buye upon the rigt Elve.

Norther-Elve.

For to set saile by nigt from the road of Holyland, the course is s. e. & by east, then you shall run over the foresaid taile of Vogelsand in 7 and 8 fathom, and somewhat hard sandy ground. If you then run a little more southerly, you shall get againe 12 & 13 fathom & somewhat soft ground, that is the rigt deep or channell of the Elve, betwixt Vogelsand and the steep grounds. If you runne then more southerly, you shall get againe somewhat hard ground of the Souther-grounds, which are (as hath beene heere beforesaid) very Steep and hard, when you come neare them in 12 or 11 fathom, you must edge off againe from them unto 12 or 13 fathom, and alongst by them towards the steepe-buye, unto the foresaid shoaling of the New-workes-grounds, & there stay for the day ligt.

When you come by day from Holyland or from the westwards, and that you get New-worke in sigt of you bring that and the Cape one in the other, & sayle so rigt in with them, then you shall finde the Steepe-buye, which lyeth (as hath beene alreody sayd) towards the south-land on the side of the Schor-horne the outermost point of the New-grounds in 10 or 11 fathom. From the Steep-buye to the Kool-buye, that is, the second Buye, the course is due east, which lyeth in 8 fathom. Upon the New-worck stand tree Countrymens-houses, the middlemost of them, and the steeple of the New-worke come one in the other when you come to the second buy. The third Buy lyeth in 6 fatum, from the Kool-buye east & north somewhat easterly, but nearest east & north. The fourth lyeth in 5 fathom from the third east & by north. Betwixt these buyes a little within the third, r un a deepe Kreeke e. s. e. into the New-workes-grounds, called the Kinder-balgh, which is wide at the entring in, & a halfe flood well 9 fatum deepe; but runneth at length altogether drye to nothing. He that commeth running alongst by the south-grounds, migt ligtly get in there, therefore the third buye lyeth a little further off from the south shoare, because men should avoyd that Kreeke. Betwixt the third and fourth buy on the north-side of the deep lyeth a white buye in 3 fatum, upon the taile of the New-ground, which men migt saile within, when they come inwards, that you must leave on larboard-side, & all the blacke buyes on the starboard-side.

Kinder balgh.

New-ground.

The foresaid white buye & the New-worke lye n. n. e. & s. s. w. one from the other, to the eastwards of it the north-side is very steepe. The fifth buye lyeth in 3 fatum & a halfe, or 4 fatum, & lyeth from the fourth full east.

The sixth buye, that is the point buy, lyeth in 6 fathom from the fourth and fifth due east. In the rigt deep to the northwards of these foresaid blak buyes from the Kool-buy to the point buye in the rigt fareway, it is all alongst 6 and 7 fatum deep. From the point buye to the buye in the Rosse, the course is s. e. which lyeth in 7 or 8 fathom, when the Ros beakon commet to the litle steeple of Gron or Groen, then you are thwart of this buye. Halfe wayes betwixt the point buye, and the buye in the Rosse, lyeth yet another buye on the south-side, which is there betwixt thom both exceeding steepe and needle to Rigt e. s. e. from the point buye over against the buye in the Rosse, somewhat further inwards, lyeth a white buye upon the tayle of Romarl-plate, which men migt at unawares saile within, in 4 or 5 fathom when they sayle upwards. When the little sharpe steeple of Woord commeth to the westwards of Oldenbroeck (that is a Church with two spires upon one steeple) then they are south from you, from thence inwards you may sound Romarl-plate in 6 fathom without danger, otherwise it is on the off-side very steepe. From the Ros beakon to Brunsbuttel or 5 leagues, betwixt the buye in the Rosse, and the buye upon Romarl-plate begins a sand lying

right in the middeſt alongſt the fareway, about two leagues long, called Pilgroms-ſand, upon it is alongſt no more then two fathom water, or a little more, upon it lye three black buyes, & over againſt it on the nord-ſide, two white buyes, you muſt ſaile throug betwixt them, alongſt to the northwards of that ſand, being paſt it, you ſhall come upon the flat. There lye yet two buyes, which you muſt leave alſo on the ſtarboard ſide it ſayling up, before you come to Brunsbuttel. All the depths here before mentioned, are reckoned at halfe flood.

From Brunsbuttel to the buye upon Salſhorne, or Fryburger-ſand, the courſe is eaſt, & eaſt and by north alongſt by the North-land. From Salts-horne to the Buy againſt the Steur, eaſt and by ſouth, and eaſt ſoutheaſt, from the Steur to the buye upon Gringer-oorts-ſand ſoutheaſt, and ſoutheaſt and by eaſt, that leyth againſt Bylenburgh more then halfe wayes in the deepe. Betwixt this Buye and the buye upon the Steur lyeth another buye in the fareway. From the buye of Gringer-oort to the buye upon Staderſand, ſoutheaſt and by ſouth and ſouth ſoutheaſt. This buye you muſt leave on the ſtarboard ſide. From Staderſand to Willems-fliet, or the buye upon the Luyte it is ſoutheaſt, and ſoutheaſt and by ſouth, and from thence to the buye upon Terloo eaſt ſoutheaſt. From thence to the buye upon Hanneball, the courſe is eaſt and weſt. From Hanneball to the buye upon Blanckenes-ſand, eaſt an eaſt and by north, you muſt keepe that buye right with a great Tree, and then runne alongſt by the North-land untill you bee paſt the buye.

From Blanckeneſſe ſand unto the buye in the bight, the cours is eaſt ſoutheaſt, from thence unto the Eeckhout eaſt and by north, in the right channell it is there three or four fathom deepe, there lye the great ſhips for to lade and unlade.

The Eyder.

Six leagues to the northwards of the Elve lyeth the Eyder, with many ſhoales lying farre out without the land chiefely & moſt on the ſouth-ſide, on the north-ſide of the deepe alongſt by the land of Eyder-ſtee lyeth a long ſand, called the Broad-back, or New-grounds, on the ſouth-ſide lye Blavoort, the Iron Hendrick, the Hound and Heckſand. To the ſouthwards of Blavoort, and the Iron Hendrick, about a league to the ſouthwards of the mouth of the Eyder, goeth yet up a Deep in called the North-pype, where men may ſayle in, and come out againe by the Hound upon the Eyder. In this Eyder lye on the ſouth-ſide of the Deepe ſeven black buyes, which you muſt leave all (in ſayling in) on the ſtarboard ſide, and on the north ſhoare, which you muſt leave on the larboard ſide. The outermoſt buye lyeth from the ſteepe buye right north, and from Holyland eaſt or a little more northerly ſeven or eight leagues. When you fall with the land with that courſe you ſhalle eſpye to the northwards of the Eyder, upon the land of Eyderſtee, a ſharpe ſteeple indifferend high, called Gardingen, bring that over or to the ſouth-ſide of the little ſand-hils lying on the north-ſide of the Eyder, called the Souther-Heads, they ſhall then ſtand from you northeaſt and by north, or a little more eaſterly, ſaile right in with them ſo, and you ſhall fall with the outermoſt buy, when that then the ſharpe ſteeple of Weſtinburen, ſtanding to the ſouthwards of the Eyder in the land of Ditmarſen commet to be eaſt or a little more ſoutherly from you, then you have the length of the foreſayd buye, and then Saint Peters Church upon the Eyderſtee to the weſtwards of Gardingen, not farre from the Sea-ſide, ſhall ſtand from the north northeaſt. Thus, or comming out of the ſouthweſt upon the foreſayd marckes of Gardingen, and the Souther-heads, yoh ſhall run over the ſhoare of Blavoort, which men doe call alſo the tayle of the Hound, lying off from Blavoort almoſt halfe wayes to Holyland. It is alſo by ſome called Blavoort, or comming from the northwards, bring the foreſayd ſteeple of Weſtinburen eaſt or a little more ſoutherly from you, & ſayle ſo right in untill that Gardingen commeth to the foreſayd ſoutherheads, or that S. Peters Church bee north northeaſt from you, in doing ſo you ſhall not miſſe alſo the outermoſt buy. From the outermoſt buy to the ſecond, third and fourth, it is all one courſe, eaſt ſoutheaſt, the ſecond lyeth upon the ſhoaleſt of the channell at low water in 19 foot, the third in four fathom, and the fourth in 5 fathom.

Theſe three laſt lye alongſt the north-ſide of Blavoort, on the ſouth-ſide of the deepe. In ſayling in, you muſt leave them all on the ſtarboard ſide, and runne alongſt to the northwards of them. From the fourth to the fift, that is, the buye upon the Hound, the courſe is eaſt, which lyeth thwart of the Hound, on a poynt which lyeth of from Heckeſand, which in comming in, men might at unawares ſayle within alonghſt to the ſouthwards of the buye, therefore you muſt leave that alſo (as well as the former) on the ſtarboard ſide, and ſayle alongſt to the northwards of it. Betwixt this foreſayd buye upon the Hound, and the fourth lyeth another buye upon the north-ſide of the deep, upon the ſouthermoſt poynt of the New-grounds, which you muſt leave on the larboard ſide, and runne about to the ſouthwards of it. From the buye upon the Hound to the ſixth, the courſe is north northeaſt, and two fathom deep. From the ſixth to the ſeventh and laſt buye northeaſt and by north, & the deepe alongſt to the northwards of it three fathom. Beingh paſt the laſt buye, follow the beakons, which ſtand alongſt on the north ſhoare, untill you come to Hulck, runne cloſe alongſt to the ſouthwards or to the eaſtwards of them, for to avoyd a tayle of ſand, which commeth off from the eaſt ſhoare, which men might unawares ſayle within into a Dead-creeke. From the Hulck to Schulper-zyle, the courſe is eaſt ſoutheaſt. In that reach, the beakons ſtand on the ſouth-ſide upon the Ballaſt-plate, aud you muſt run alongſt to the northwards by them, leavingh them on the larboard ſide. From Schulper-zyle to Tonningen the courſe is north northeaſt. Before Tonningen the Eyder is at the ſhoaleſt, and at low water, no deeper then one fathom and a halfe. From thence further in towards the New-town called Frederick-ſtadt, there is depth enough.

The depths here before mentioned are all to bee underſtood at low water. From Tonningen towards Wollerſum the Eyder lyeth alongſt northeaſt and by eaſt. From Wollerſum towards Harebleck north northweſt. From Harebleck towards Reymers-bode northeaſt. From Reymers-bode towards Nyen-zyle eaſt ſoutheaſt. From Nyen-zyle to Nyen-veere ſouth.

Betwixt the fourth buye upon the Eyder, and the fifth, that is, the buye upon the Hound, over againſt the buye upon the ſouthermoſt point of the New-grounds, ſtand two beakons a little to the ſouthwards of the foreſayd two buyes the weſtermoſt upon the eaſt-point of the Blavoort, or the Iron Hendrick, and the eaſtermoſt upon the tayle of the Hound. Betwixt theſe two beakons goeth in through a deepe ſ. e. or ſ. e. eaſt and by eaſt, where you may ſayle through alongſt by the beakons upon the Iron Hendrick (which you muſt leave then on the ſtarboard ſide) untill you come into the end of the North-pype, which lyeth from thence about weſt into Sea. You may ſound in at the North-pype, comming in out of the Sea by the ſouth ſhoare in 3 and 4 fathom, untill you come to the foreſayd beakons, ane then about by them n. weſt or ſomewhat more weſterly up unto the Eyder, or elſe you may runne further alongſt by the foreſayd ſouth ſhoare, untill you come about the beakon upon Hoedmeerſand, and then forth betwixt the Iſland Bulheads and Buyſen alongſt by the Beakons upon Hoedmeer-ſand, with many poynts and Bights on to the ſouthwards, and come out at laſt upon the Old-Elve, about northeaſt from the New-worck againſt the New-grounds, which is not well to bee ſayled, but of thoſe that are there very well acquainted.

Alongſt by the north ſhoare of the Eyder, cloſe to the ſouthwards of the little ſandhills, the ſoutherheads, runneth in yet a Land-deepe, eaſt and eaſt and by north in, & commeth out againe upon the Eyder by the Hulck, that ſerves but onely for ſmall ſhips, there remaineth at low water but five foot.

Of

Lesou
Holms
Dee
Hugerby
Laeclou
Harthals
Robbeknuyt-
Werhum
Kettorp
Oosterhoeck
Orum
Holmen
Sedhyn
Grimste
Randersen
Mariacker
Kiel
Aerhuysen
Skeelund
Rif

ZEELANT

FVEN

Halcim

Rif

Syro

Ronas

Kallenborgh

Schouwen

Walcheren

Meum Stock

Falster

Lalant

Colberger Heyde

Werd

Kyholm

Samso

Bolsack

Romps

Nyborg

Ostorp

Odensee

Assens

Kierschou

Tandorp

De Roen

Lassapel

Alsen

Nubel

Ruckoster

Koldingen

Hadderslef

Flensborgh

Apenrade

Ripen

Tundern

Sild

Duytsche mylen 15 in een

Spaensche mylen 17½ in ee

Eng. en Fra. mylen 20 in

Z E E L

Grimste

Samso

Manu

Rem

Odentee

Kallenborgh

Kiøbenhaffn

Helsingør

Kiøge

Nyborg

Kiøbenhaffn

Kolding

Hadersleu

Ripen

Aerhuson

Randersen

Marstacker

Grimsund

Swartzburg

Rinckioping

Nieuport

Dunkerque

Calais

Boulogne

Hauen

Lesou

Rif

Syro

Wero

Kal

Ebeltoft

Nyborg

Middelfart

Sønderborgh

Tondorp

Tønder

Ribe

Esbierg

Skagen

Frederickshaven

Aalborg

Viborg

Randers

Aarhuus

Horsens

Veyle

Kolding

Apenrade

Sønderborgh

Flensburg

Husum

Tønningen

Eyder

Tessing

Ringkiøbing

Ringkiøbing Fiord

Lemvig

Thyboron

Hanstholm

Skagen

Læsø

Anholt

Hiortholm

Kullen

Helsingborg

Landskrona

Malmø

Trelleborg

Ystad

Simrishamn

Ahus

Carlscrona

Bornholm

Rønne

Hammershuus

Gedser

Stege

Møen

Falster

Laaland

Fyen

Sealand

Skaane

Blekingen

Gothland

Wisby

Faro

Ferno

Swartzburg

Rinckioping

Nieuport

Dunkerque

Calais

Boulogne

Hauen

Lesou

Rif

Syro

Wero

Kal

Ebeltoft

Nyborg

Middelfart

Sønderborgh

Tondorp

Tønder

Ribe

Esbierg

Skagen

Frederickshaven

Aalborg

Viborg

Randers

Aarhuus

Horsens

Veyle

Kolding

Apenrade

Sønderborgh

Flensburg

Husum

Tønningen

Eyder

Tessing

Ringkiøbing

Ringkiøbing Fiord

Lemvig

Thyboron

Hanstholm

Skagen

Læsø

Anholt

Hiortholm

Kullen

Helsingborg

Landskrona

Malmø

Trelleborg

Ystad

Simrishamn

Ahus

Carlscrona

Bornholm

Rønne

Hammershuus

Gedser

Stege

Møen

Falster

Laaland

Fyen

Sealand

Skaane

Blekingen

Gothland

Wisby

Faro

Ferno

Pascaerte
Vande West en Oost cust van
JUTLANT,
Als mede
DE BELT;
Mitsgaders de zee-cust van Holster, Mekelenborg en de Eylanden van Lalandt, Falster ende Meun.
't Amsterdam,
By Iacob Theunisz. op 't water in de Lootsman.

Duytsche mylen 15 in een graet
Spaensche mylen 17½ in een graet
Eng. en Fra. mylen 20 in een graet

Of the Tydes and Courſes of the Streamus.

Before the Scholbalgh, the Lauwers and the Schille, and before the Weſtern-Eems a ſ. e. and n. w. Moone maketh high water.

Before Embden and Delfzyle a north or north and by eaſt, and a ſouth or ſouth and by weſt Moone.

In the Eaſtern-Eems & Burckumbalgh a ſ. ſ. e. and n. n. w. Moone.

Before the Channells betwixt the Eaſtern-Eems and the Weſer, a ſouth & ſouth and by eaſt, & a north & north & by weſt Moone.

In the fareway betwixt the Flye & the Elve, the foreflood commeth out of the North-Sea, & turneth about by little and little with the Sunne falling the halfe tyde e. n. e. alongſt the ſhoare, & the Ebbe w. ſ. w.

Before the Weſer and Elve, and alſo in the Eyder a ſouth & north Moon maketh high water. The flood commeth there out of the n. w. & the Ebbe out of the ſ. e. and fall very ſtrong over the grounds that lye out there.

Under Holyland an n. e. & ſ. ſ. w. Moone maketh full Sea.

Of the Depths about theſe Places, and in what depths men may ſee the land.

Schiermonick-oogh men may ſee in 12 & 13 fathom four great leagues without the land.

Rottum and Borckum men may ſee in 14 and 15 fathom.

Thwart of Borckum the ground is groſſe red ſand, mingled with ſome black.

Juyſt men may ſee in 13 and 14 fathom, 3 leagues without the land, it is 12 fathom deep.

Buys and Norderny men may ſee from the Poop in 12 and 13 fathom.

Baltrum, Langeroog and Wrangeroogh, men may ſee it in 14 and 15 fathom.

Thwart of Botjadigerland, Reydingerland and Ditmarſen, the grounds lye ſo farre without the land, that you cannot ſee the Coaſts, except you clim be up into the top.

About Holyland it is deep 7, 8 and 9 fathom, to witt, on the inner-ſide, but without on the weſt-ſide 15, 16, 18 and 19 fathom, in ſuch depth you may ſee the land of Holyland from the weſtwards.

Courſes and Diſtances.

The Coaſt alongſt theſe Iſland lyeth e. n. e. and w. ſ. w.

From Borckum-Riffe to Wrangeroog e. n. e. 17 leagues

From the Eaſter-Eems or Juyſt-Rif to the Steepbuy or Schortun e. n. e. 20 le.

From the Eems to Flambroug-head weſt ſomewhat northerly 77 leagues

From te Eems to Boevenbergen north and by eaſt 57 leagues

From the Eems to Holyland, the courſe is n. e. & n. e. & by eaſt 21 or 22 le.

From Wrangeroog to the New-worke e. n. e. 8 leagues

From the outermoſt buye upon the Elve to the Eyder north 7 or 8 leagues

From Langeroog to Holyland n. n. e. 10 leagues

Holyland and the outermoſt buye in the Weſer lye north ſomewat eaſterly, and ſouth ſomewhat weſterly. The buy upon the Head in the Weſer & Holyland lye north and ſouth aſunder 8 leagues

The Steep-buye on the New-worck & Holyland lye ſ. e. and by eaſt, and n. w. and by weſt aſunder. 8 leagues

The outermoſt Buy in the Eyder and Holyland lye eaſt ſomewat northerly, and weſt ſomewhat ſoutherly aſunder 7 or 8 leagues

From Holyland to the Holms, before Jarmouth, the courſe is w. ſ. w. or ſomewhat more weſterly 72 leagues

From Holyland to Scarbroug and Flambrough-head weſt, or ſomewat more ſoutherly 88 leagues

From Holyland to Tinmout or Newcaſtle w. ſomewat more norterly 106 l.

From Holyland to Liet in Scotland, weſt and by north, and ſomewhat more northerly 120 leagues

From Holyland to Boeckenes n. w. and by weſt 128 leagues

From Holyland to Hanglip in Hitland n. w. 169 leagues

From Holyland to Boevenbergen north and by weſt 43 leagues

From Holyland to the Horne or Doodeberg north 25 leagues

From Holyland to Knuyts-deep or Ryper-deep, the courſe is north and north and by eaſt 20 leagues

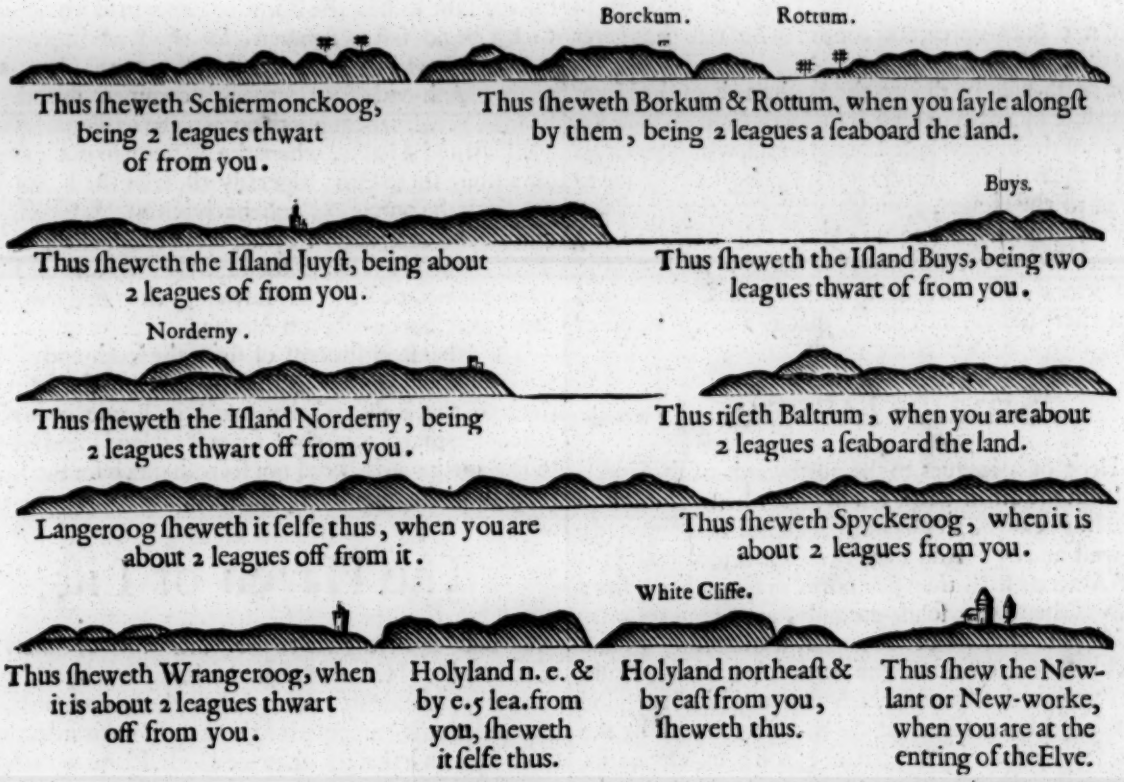
From Holyland to the Deepe of Silt or Liſt north and by eaſt 17 leagues

From Holyland to Ameren, or Small-deep, the courſe is north northeaſt ſomewhat eaſterly 10 leagues

From Holyland to the outermoſt Buye in the Hever, northeaſt 8 leagues

When you lye by the outermoſt Buye in the Hever, in cleare weather, you may ſee Holyland.

How theſe Lands doe ſhew them ſelves at Sea.



Thus ſheweth Schiermonckoog, being 2 leagues thwart of from you.

Thus ſheweth Borkum & Rottum, when you ſayle alongſt by them, being 2 leagues a ſeaboard the land.

Thus ſheweth the Iſland Juyſt, being about 2 leagues of from you.

Thus ſheweth the Iſland Buys, being two leagues thwart of from you.

Thus ſheweth the Iſland Norderny, being 2 leagues thwart off from you.

Thus riſeth Baltrum, when you are about 2 leagues a ſeaboard the land.

Langeroog ſheweth it ſelfe thus, when you are about 2 leagues off from it.

Thus ſheweth Spyckeroog, when it is about 2 leagues from you.

Thus ſheweth Wrangeroog, when it is about 2 leagues thwart off from you.

Holyland n. e. & by e. 5 lea. from you, ſheweth it ſelfe thus.

Holyland northeaſt & by eaſt from you, ſheweth thus.

Thus ſhew the New-lant or New-worke, when you are at the entring of the Elve.

The third Demonſtration,

WHERE IN

Are Deciphered the Sea-Coaſts of the weſt and eaſt-ſide of Jutland, together with the Belt, untill you are paſt Laland and Langeland.

FRom the New-worcke, or Steepe-Buy to the Hever, the courſe is north 10 leagues, when you come about halfe wayes betwixt them both, you ſhal meet with the foreſayd ſand or tayle of Blavoort in the depth of 2 or 3 fathom. In this fareway you muſt be very carefull of your tydes, that you come not upon the grounds, which lye far out a ſeaboard the land, the foreflood falleth there very ſtrongh thwart over the grounds towards the land, and the ebbe to the contrary.

For to ſayle from Holyland to the Hever, goe on n. e. ſomewhat eaſterly, or according as the winde and tyde ſhal be, and runne towards the grounds, until you come in 6 or 7 fatum, & then you ſhall eſpye a ſteeple, which is ſharpe

and indifferent hig, called Pielworme, bring that n.e. & by north from you a maſts lengt to the ſoutwards of the ſoutermoſt Cow-houſe, upon the little Iſland Nuball, keepe that ſo ſtanding, & ſaile towards it, & you ſhall ſo finde the outermoſt buy, from that to the ſecond buy, goe on n.e. & n.e, and by e. being come to it, Pielworme ſteeple ſhall ſtand n. n. e. from you. From the ſecond buy alongſt inwards, the courſe is n. e. and by eaſt. Being come in ſo a good wayes, you ſhall finde 2 beakons on the ſtarboard ſide, upon a dry ſand, called the Quade, there over againſt commeth the north-balg in the rigt Hever. From the firſt beakon the ſecond and third, the courſe is e. & by n. ſaile all alongſt by the beakons, leaving them on the ſtarboard ſide. To the northwards of them betwixt the firſt and third beakon, it is full of ſands and plates, where you might at unawares ſayle within. By the third beakon commeth the ſouther balg into the Hever. From that third beakon to the two other beakons, the courſe is n. e. & by e. being paſt that you ſhall come by the grene land on the ſtarboard ſide, there it is a ſquare deepe, large and broad channell, from thence you may ſaile alongſt a midſt the channell unto Hoeſem at the Bridge, or anchor thereabouts every where, where you will.

Without in the Hever the north-ſide is ſteepe, therefore keepe the ſouth-ſide untill you come within the beakons, in the channell is at halfe floud 2 fathom and a halfe water, and without the channell it is very farre flat. Somewhat without the Hever lyeth alſo a banck, whereof men muſt bee carefull when they will ſayle in there. A ſouth and norther Moone maketh there the higheſt water.

The Southbalg goeth into the ſouthwards of the foreſayd banck the Quade, in right with the little Iſland Utto, and alongſt to the northwards of it, it is from without a league and a halfe to ſayle to Utto. From Utto it lyeth in alongſt n. e. & by north, and commeth out into the Hever by the third beakon.

The north-balg lyeth into the northwards of the Hever about eaſt & by north or weſt & by ſouth from Pielworme, rigt in with the foreſaid little Iſland Nuball, which you muſt leave on the larboard ſide runningh in alongſt by it, and ſo come in to the Hever, againſt the foreſayd drye ſand the Quade: you may alſo (comming in at the north-balgh) ſayle up to the northwards from the Iſland Nuball unto the end of Strand, till you come thwart of a flat Church, and anchor there behind the ſhoals, that is a deepe balgh or Creek.

Small-Deepe.

THree or 4 leagues to the northwards of the Hever, lyeth the Small-deep. For to ſayle of from Holyland toward it, goe on n. e. & by north, & runne to the grounds, about weſt and by north, from the Pielworme, the ſouth-end of Ameren ſhall then bee north or thereabouts from you. Seck then to the ſouth-grounds, and ſound about by them, & there you cannot doe amiſſe, it is flat riſing ground farre without the land. On the north-ſide lye many ſands, ſhoals & points, that lye out, which men migt (without good heed-taking) ſaile within: ſaile in therefore alongſt by the ſouth-ſide north and by eaſt, n. n. e. and n. e. & by north, and ſo you ſhal finde one ſhoale or breach, leave that on the larboard ſide. If you leave that on the ſtarboard ſide, you ſhould runne into a Dead-balg or Creek, wherein is at the firſt at leaſt 7 fathom depth, but runneth at laſt by little and little to nothing: you may alſo runne alongſt by that foreſayd ſhoale by your lead, untill you come within it, comming then thwart of the ſouth-end of Ameren, you might unawares ſayle within the South-grounds behinde a ſhoare which ſhoteth off from the grounds of Vooren, therefore keepe the ſouth-ſide untill that you come thwart of the Iſland Vooren.

The Red-Deepe.

FOr to ſaile in at the Red or Silter-depe, comming from the northwards, or out of the Sea, run in ſigt of the Iland Ameren. About the middeſt of Ameren lyeth a white round hill, a little higher then the other Hommocks in a low playne valley. Bring that northeaſt from you, and run in ſo rigt with it, untill you come within the riffe that ſhooteth of from the Voortrap, and commonly is called Ameren Borne, and ſo you cannot take any hurt of it, and then you ſhall have upon the poynt of the Riffe not leſſe then 3 fatum water, & within the ſame riffe 11, 12 or 13 fatum. Sayle ſo in untill that the north-end of Ameren be north and by eaſt from you, and then run in right with the north-end of Ameren, untill you come within the dry ſand, and there you may anchor where you pleaſe, or ſaile ſo farre in as you will, and ſound it all alongſt by the riffe. Ameren Borne.

The Strand of Ameren is a fayre Strand without any tayles that men migt ſaile within. When the foreſayd hil upon Ameren is e. n. e. from you, and ſayle ſo rigt with it, then you run to neare the foreſayd riffe of Silt, the hill is then alſo in two parts, the northermoſt is then the ſmalleſt.

For to ſayle in at the Red-deepe or Silter-deepe, comming of from Holyland, & that you have gotten ſigt of the land, then bring the north-end of Ameren north & by eaſt from you, untill that you be come in betwixt Ameren, and the riffe of Silt, runne then in alongſt by the ſtrand of Ameren, untill you come about the north-poynt of Ameren and ſo along to the eaſtwards, untill that Ameren lye ſouth and ſ. ſ. w. from you. You may not ſayle into this channell farther to the eaſtwards, for then you come againſt the Iſland of Vooren, but you may ſayle to the northwards alongſt betwixt Vooren and Silt, till you come before Lit. In Silter-deepe is upon the ſhoaleſt 3 fathom water, beingh over it, there is againe 8, 9, 10 and 12 fathom, there lye two riffes or bad ſands, the one about w.ſ.w. from Ameren dry above water, that is very farre flat, to witt, in 3, 4 or 5 fathom, it is called of the Juthers the Borne or Ameren-Borne, although that it be not faſt to Ameren, for the Red-deep goeth in betwixt them both. It is not alſo faſt unto the Voor-traps, or that ſouth-end of Silt, althoug it commeth ſhooting hot from it, betwixt them goeth out into Sea a deepe of about a fathom and a halfe, where the Fiſhermen doe dayly goe out throug for to Fiſh, eſpecialy thoſe of the Iſland Vooren, this is the outermoſt ſand that lyeth on this Coaſt. They that uſe this coaſt much: eyther for Rypen, or the Quarres there abouts are very much a frayd for this Ameren-Borne, when they come of from Holyland, they find this ſhoale about weſt ſouthweſt from Ameren.

The other ſand ſhoteth of from the ſouth-end of Ameren, lying about ſouth & ſouth & by weſt into the ſea alongſt the land, that is alſo called by many the Borne, or Ameren-Born. He that commeth of from Holyland, and is bound to the northwards, need not feere ſo much for the ſhoale, for it ſhooteth out moſt by the land.

The Haven of Liſt.

ABout eight leagues to the northwards of Silter-deep lyet the Haven of Liſt, which runneth in by the north-end of the Iſland Silt. For to ſaile in there, comming from the ſouthwards, runne ſo longh to the northwards in ſix or ſeven fathom, that you may ſee a little Iſland without the poynt (which lyeth within theſe outer Iſland) upon which ſtandeth a houſe, called Jeurtmans-houſe: when that houſe commeth a maſt length without the poynt of Liſt, then goe in eaſt and by ſouth, and eaſt ſoutheaſt, keepe thoſe markes ſo ſtanding, untill that you bee within the poynt of Liſt, edge then up to the ſouthwards about the point, and anchor before the Vuchts-houſe, there it is nine and tenne fathom deep. At the entringh of the channell lyeth a plate or ſand, called Haef-ſand, that you ſhall leave on the larboard ſide, when you come in, it is on the off ſide very flat, and good for to ſound when you come from the northwards. For to avoyd that when you come from the northwards, edge of ſo far from the ſhoare, that the red Cliffe come without the ſand-hills, or that you may ſee it playnely: Then you may well goe over Haef-ſand, with a ſhip that is not of a very great draugt. Likewiſe when you come out at the channell of Liſt, and are bound to the northwards, ſayle ſo farre out that you may ſee the Cliffe, and Haef-ſand.

then

then you may goe over the foreſaid ſand, which lyeth from the ſouth-end of Rem a good wayes into Sea.

On the ſoud-ſide of the channel of Liſt lye alſo two ſands or banks alongſt the ſhoare, not very farre without the ſtrand, the innermoſt or northermoſt is called Barling-ſand and the outermoſt Ruſt, or Ruſting, that lyet to the ſouthwards almoſt thwart of the red Cliffe, betwixt theſe ſands, and the ſtrand of Silt goeth in the Land-deep. For to ſayl in there comming from the ſouthwards, you muſt ſeek betimes to the ſtrand of Liſt about the red Cliffe, becauſe of the Ruſt which lyeth of from the north-end of Liſt a little without the ſtrand. When that you have the ſounding of the ſhoare, and are come ſomewhat within that red Cliff, there ſhall meet you a flat from the ſhoare, which you muſt ſomewhat avoyd, and then you may ſound very wel: keep al alongſt the foot ſtrand, there you can take no hurt of it. From the inner-point of Liſt ſhooteth of alſo a little riffe, where of you muſt take heed. When that you are come within the Innermoſt-point of Liſt, then you may anchor where you pleaſe. If you will goe to Lutke Tonderen, then leave that ſand (which lyeth to the ſouthwards of Jureſand) on the ſtarboard-ſide, and runne throug betwixt them both. He that is bound to Hoeſem or Silt over the Watt, muſt leave that ſand on the larboard-ſide. Upon Vooren ſtand two or three trees, theſe you muſt keepe over the weſtermoſt Church or ſteeple, and run ſo alongſt unto Vooren.

Barling ſand. Ruſt, or Ruſting

Betwixt the Ruſt and Barling-ſand goeth a faire deep channel throug, called the New-deepe, rigt in alongſt to the ſouthwards of Rock-ſand, that is a ſhoale which lyeth to Sea-wards of Ruſt & Barling-ſand. For to ſaile in at that New-deepe, bring the white cliffe upon Silt eaſt, and eaſt and by north from you and run in ſo rigt with it, and you ſhall ſal rigt in the New-deep betwixt the two banckes, leaving Rokſand or the Maber on the larboard-ſide of you, run in ſo alongſt by Ruſt, but come alſo no nearer to it then in 4 fatum, untill that you come into the Land-deep, but comming againſt the ſhoare, and getting ſhoaling of the ſtrand, run in alongſt by the foot ſtrand on inwardes, as is rehearſed in the deſcription of the Land-deep.

Rock-ſand.

Betwixt Haef-ſand, or Haes-ſand, and the Iſland of Rem goeth in yet a little Land-deep of about a fathom & a halfe water. The Iſland Rem is 3 leagues long, and very flat on the off-ſide, ſo that you ſhal ſcarce ſee that land in 6 or 7 fathom.

About 8 or 9 leagues a ſeaboard of the Iſland Silt lyeth another banck alongh the ſhoare of 8 or 9 fathom, and is about two leagues long, about ſo long as the Iſland is. Betwixt this Bancke and the Iſland it is 13 fatum deepe, being in 9 fatum a ſeaboard the Iſland Silt, then lyeth Holyland about ſouth from you.

anck f at ea.

Knuyts-deep or Ripper-deep.

FRom the channell of Liſt to Knuyts or Ryper-deep the courſe is north & ſouth about 7 leagues, but Ryperdeepe & Holyland lye north ſomewhat weſterly, & ſouth ſomewhat eaſterly one from the other, for to ſaile in to Knuyts or Ryper-deep comming from the ſouthwards, run about by the flat of Rem & Manu towards the ſouth-end of Phanu, called ſouther-head, or Souther-heig, & ſo you ſhall ſee two Capes upon a drye ſand, ſomewhat to the ſoudwards of Souterhead, bring thoſe Capes a little throug one another, to with the innermoſt or longſt a little or a hand-ſpikes lengt to the northwards of the ſhorteſt or outermoſt and then they ſhall ſtand e. n. e. from you, keep them ſo ſtanding, & ſayle rigt in with them, and ſo you ſhall finde the outermoſt buye, lying on the north ſhoare in 4 fatum in the channell, called Old Ruper-deepe, leave that buye on the larboard-ſide, and then goe inwards eaſt & by n. e. and eaſt and by ſouth unto the ſecond buye, you muſt runne alſo about to the ſouthwards of it, for thwart of it commeth a ſhoale ſhoting of from the north ſhoare from the outermoſt Cape towardes the ſecond buye, which you muſt avoyd.

f- d.

Or keepe the ſounding of the ſouth ſhoare called Coerſand and run by your lead firſt eaſt and by north, then eaſt, & at laſt eaſt & by ſouth in by it, you ſhall finde there upon the ſhoaleſt not leſſe then 10 foot at low water and common tyde; there within it is again 6, 7 & 8 fatum deepe. Being paſt the Capes, then luffe up to the northwards, about the ſand where the Capes ſtand upon, & anchor there where you pleaſe, there it is wide & broad, & alſo deep & ſteepe, ſo that there you can take no hurt. The Ryper ſhips that are bound out, doe lye there for to ſtay for a wind. Behinde the Iſland Manu it is 6 and 7 fatum deepe, there alſo men may ride from thence you may go up the deep to Rypen, but not up alongſt to Rype with great ſhips, cloſe to Rypen the deep endeth, ſo that there is a ſhoale neek betwixt both, where there is no mor then 6 foot depth. With ſmal ſhips you may alſo ſayle about behind Rem towards Jurſand, there is at low water about 7 foot water.

Comming from the northwards for to ſayl to Ryperdeepe, you ſhall alſo runne on to the ſouth-end of Phanu, untill that you ſhall eſpye the foreſayd Capes, & goe, then further as is a bove taugt. This channell is not the beſt channell in foule weather, for it is narrow & farre of ſhoale without it: but when you ſhal bee entred into, you may eaſily ſee both ſides break, if it blow any thing hard.

A ſ. ſ. w. & n. n. e. Moon maket here the higeſt water.

The Growe-Deep.

ABout n. e. or n. e. and by north from the norrh-end of Phanu lyeth a little Hill, called Luysberg: a little to the northwards of it lyeth a long plaine Sandhil, called Langeleg: from thence lyeth the land towards Zuyder-zyt w. n. w. and e. ſ. e.

Betwixt the north-point of Phanu & Langeleg goeth in that Growe-deep. For to ſail in there when you come from the ſouthwards, run alongſt the Iſland Phanu, and about by the north-end of it (which is farre flat.) When as that you get deeper water, you ſhal ſee three or four hommocks about n. e. from you, upon the hig land with a litle ſteeple, called Holm, or Bruynum. Bring that little Church a Cables length to the northwards of the Hommocks, goe in then n. e. and keep the ſouth ſhoare, untill you come within that dry ſand, which ſhooteth of from Phanu called Smeurſand, you may run to that upon your figt without doing amiſſe, but leave that on the ſtarboard-ſide when you come in. The ſhoares are there about of them very ſteepe, as well Wiſdike, (that is the Plate which lyeth in the channel) as alſo Smeurſand, but without the ſhoares are flat. When you are paſt the poynt of Smeurſand, edge then over to Wisdike, & anchor there untill that you have the loweſt water, and then you may ſayle to Hartingen, & go on forth to Wardt, or Woerdt; which lyeth 8 or 9 leagues within the land, the river is very crooked; upon the which here & there lyeth a Gentelmans houſe.

Lange-leg.

Smeur-ſand.

Wardt.

A ſ. ſ. w. and n. n. e. Moon maketh there the higheſt water, and there floweth with a common tyde about a fatum up and down.

From Phanu to Schellingkroeg it is four leagues, betwixt them lyeth Zuyder-zyt a little river of eigt or nine foot water. The land betwixt Langeleg and Zuyder-zyt is ragged land with ſand-hilles, and roug, being grown with ſpirie graſſe, or heath. If you ſhould fall with the land at Zuyder-zyt, and that you could not lead it into the channell, then chooſe the land of Langeleg, you may run to it without danger, keepe in two fathum and a halfe, and you cannot ſuyle amiſſe of this Kroeg: for you may ſound this land all alongſt in 2 fathum and a halfe off from Langeleg untill you come within Schelling-kroeg, but if you run in three fathum or three fathum and a halfe, you ſhall ſayle without the drieſand, and run about a ſeaboard of the forenamed Kroegh. Schellingh-kroegh lyeth in moſt northweſt, men lye there within ſheltred for all winds, like as men doe lye at Coningsborough in the Kettell. If ſo bee that you come from the northwards, and are bound into this Haven or Kroegh, you may run about by that drye ſand in three fathum, when you come by the Innermoſt point of that drie ſand, there ſhooteth of a little tayle of ſand, but you may ſee it well, and keepe your ſelfe

Schel-lingkroeg. Zuyder-zyt.

from it: when you come to the eaſt-end of that ſand, luffe up about it, untill you come into that Kroeg, & anchor there in 2 fatum & a foot, it is there very wide, you may make there a good board, end turne it in to windwards. A ſ. ſ. w. and n. n. e. Moone maketh there the higheſt water, the farther you come to the northwards to Jutland, the leſſe tyde goeth, and the leſſe it floweth up & downe.

Dodenbergh. At the nord-end of the foreſaid drie ſand lyet the Dodenberg, that is a ſhort hommock of a Sand-hill, which lyeth alone. When you are ſomewhat off from it, then it lyeth under the otherland, that you cannot ſee it, when you come from the ſouthwards or the northwards you may ſee it. From the Doodenberg unto that ſouth-end of the drie ſand, it is all alongſt a faire ſtrand, and flat grounds. For to ride under the drie ſand, you may ſound about it comming from the northwards, and get ſmooth water for a n. w. wind, and alſo for weſterly windes.

A little to the northwards of the Doodenberg lyeth the point called the Horne betwixt Zuyder-zyt and Weſter-zyt making there a Horn of the land: to the ſouthwards of it the Coaſt lyeth e. ſ. e. & w. n. w. towardes the Growe-deepe: to the northwards of it north, and ſouth towardes Weſter-zyt. Weſter-zyt is a village lying betwixt the Blawenberg & the Horne.

Reefs-horne. About this point or Horne runnet off a long bank about 11 leagues w. ſ. w. into Sea: called Reefshorne, or as ſome do name it Devilhorne, which lyeth a ſome places altogether drye, ſpecially 7 or 8 leagues from the ſhoare, where it is not deeper then 2 fathom and a halfe, or 3 fathom a foote leſſe. A ſhippe that ſayleth upon it, men can but even ſee it from the land it is at the deepeſt by the land, to witt 4 fathom lacking a foot. He that commeth there from the northwards with a ſhipp of a great draugt muſt take verie good heed, for it is upon n. w. ſide of ſteepe, that men ſhall have one caſte 22 the next caſt 15 and the third caſt no more then 3 fatum.

When you fall with the land with Weſter-zyt or to the northwards of Reefſhorne, you may ſound alongſt by the ſhoare in 6 or 7 fatum, untill you come neare the foreſaid Horne: you ſhall then alſo finde anoter ſhoale Riffe, that runnet of from the land, called the Owle, which is alſo very ſteepe on the nord-ſide: from the northwards you may not come nearer it, then in 7 fatum. A litle to the ſouthwardes of it beginnet Reefſhorne to runne of from the ſhoare, it is there narrowe bank, you ſhal not finde there leſſe then 3 fatum, or 3 fatum lacking a foot water, at 2 or 3 eaſt or according as it ſhal blowe hard or ſoft, & that you ſhall make your waye, & then you ſhal get preſently againe 5 fatum, & ſound it about by that ſhoale ſand, wheter you deſire to bee.

The Horne.

According to the opinion of ſome, Doggers-ſand beginnet from this bank. When men ſette ſaile early in the morning out of Rinkopper deepe, with a ſ. w. waye, & a good n. e. winde, then they are about four of the clock in the afternoone yet in 9 fatum, wherdby it ſhould appeare, that Doggers-ſand ſhould have his beginning a this banck.

For to know the land there abouts: About 4 leagues to the northwardes of the foreſaid Horne lyet a hig hil a little from the ſtrand, called the Blawenberg, going playn downe on both ſides, which is ſomewhat blacker then the other land, being grown with ſpyrie graſſe, to the ſouthwards of this Blawenberg lyeth that fiſhers village Weſter-zyt, betwixt that village & the Horne lyeth one Black hommock, and alſo a Gentelmans houſe, otherwiſe the land is altogether full of hommocks.

Rinkopper-Deep.

TO the northwards of the foreſaid Blawenberg lye 3 or 4 lowe white Sand-hills, & by the haven of Numen alſo two great white Sand-hills cloſe one by the other. To the northwardes of theſe Sand-hills runneth of that Haven of Numen, the land lyeth betwixt the haven of Numen, & the Doodenberg, moſt ſouth & north about 7 leagues, all alongſt a faire ſtrand: the beſt to bee knowne of this Coaſt, is the foreſaid Blawenberg and theſe two foreſaid white Sand-hills.

Rinkopper deep. For to ſayle into Rinkopper-deep or the Haven of Numen runne alongſt by the land of Weſter-zyt, in 6 or 7 fatum, untill that you come to the two foreſayd great white Sand-hilles, & then you ſhall ſee upon a low land two capes, upon each of them ſtandeth a barrel: Bring them one in the other, & then they ſhal ſtand north or north & by eaſt from you, ſaile in rigt with them, & you ſhall finde a buye, excepit it be laide ſomewhere els. Rigt before the haven of Numen lyeth a Sand-plate, named Gladde-Jaep. For to ſaile into the ſouther channell, then leave that plate on the larboard-ſide, & run in cloſe by the ſouth ſhoare or foot ſtrand (where the a foreſaid white Sandhilles doe lye upon) rigt with the Capes, and there you cannot doe amiſſe, but runne in boldly by it upon your lead, that is the very ſureſt way of all to ſail in alongſt by the ſtrand, when men are carefull of the lead. Gladde Jaep.

Being paſt Gladde-Jaep, runne then towards the north ſhoare, you may ſaile about by it ſo cloſe as you will, it is a lowe playne point, altogether cleane & very ſteepe when you are come within this point, you may anchor where you pleaſe. This channel lyeth in moſt n. & n. & by eaſt until you come within Gladde-Jaep, & then ſomewhat more eaſterly towards the foreſayd point. In this channel goeth an indifferent ſtrong tyde, becauſe there lyeth ſuch a great ſound within. It floweth there little up & downe, no more then two foot & a halfe, with a common tyde. A ſ. w. & n. e. Moone maketh there the higheſt water. Rigt to the northwardes of Gladde-Jaep runneth in another channell, but there is no more but 8 foot water.

Further within the Haven of Numen it is Pilots water, but ſhippes that are not of great draugt may well ſaile up, eſpecially at low water. The deepe runneth alongſt by the ſtrand of Nunis keeping alongſt by it, you cannot doe amiſſe: ſo ſoone as you goe of from it, you ſhall bee in danger to ſaile within the ſhoares or tayles, which lye of from the Ward towardes the land of Numit, therefore runne cloſe alongſt by the foreſaid ſtrand of Numit ſo long, untill that the little Church wit a flatt ſteeple (bee about eaſt from you againſt the hig land of the Holme) come to the ſouth-ſide of the hig land: then you are within the tailes & ſands that lye out, leave then the ſtrande, & goe in n. n. e. & n. e. and by north, untill that a round hommock come cloſe to the ſouthwardes, or rigt over a little blew Church upon the hig lands of Holme. Goe then in alongſt n. e. and by eaſt until that the foreſaid little blew Church commeth over a Gentlemans-houſe, beneath in the low land, cloſe to the water. Sayle then on north, and by little and little north and by eaſt, until you come before Rinkoppen, it is there broade, large and wide, and the rigt deep 2 fatum and 2 foote.

Rinkoppen and the havens mouth of Numen lye 4 leagues aſunder, it one from the other.

To the northwardes of Rinkoppen goeth a little river into the land, upon which lye two little townes, 7 or 8 leagues in the land, the one named Hoſtebro & the other Huys-buy.

A halfe league to the ſouthwardes of Bovenbergen goet in yet anoter little haven inwardes out of the Sea, numed Tromſmone, there ſtand two maſtes, you muſt keepe them one in the other, & runne ſo into it: there lyeth a little village within called Troſmonde. From thence you may ſaile over the Wardt to Rinkoppen.

This little haven is not to be reckoned for a Haven becauſe ſometimes it is caſt to, and ſometimes there may goe in and out againe Boates or Crayers and ſmall ſhippes.

From Rinkopper Deepe or the Haven of Numen to Boevenbergen the land lyeth moſt north & ſouth 10 leagues, there is all alongſt betwixt them both a faire ſtrand, with ſand-hills, growne with ſpyrie graſſe.

When you ſayle alongſt by it, you may ſee the blew double land of Rinkoppen, (called the Holmes) alongſt over this land.

Betwixt Boevenbergen & the Reefshorne lye ſome bankes of 7, 8 & 9 fathom, & alſo ſome that are deeper.

Boevenbergh. Boevenberg is a long ſmooth hill having in the middeſt a hig round hommoc or hil, and upon that hill ſtandeth a church with a ſteeple: when you come thwart to land with Boevenbergen, it ſhewet it ſelfe in 3 hilles, the middle-moſt

moſt is the higheſt, upon which ſtandeth the foreſayd Church with a flat ſteeple: upon both ſides of that hill ſtand alſo other Churches, but they are not ſo hig: you may ſee the land in 13 & 14 fathom, the ground is groſſe red ſand with ſome little ſtones there in.

When Boevenbergen is e. n. e. from you, it ſheweth it ſelf in a longh hill, with ſome dale in the middeſt on the north-ſide, with a Church, & alſo a Church on the ſouth-ſide, & alſo another hill to the northwardes of it.

From Boevenbergen to the Holmes the land lyeth north northeaſt 9 or 10 leagues, betwixt them it falleth in with a Bigt, it is blak land with hommoks, & ſandhilles growen with ſpyrie graſſe, here & there ſtandeth a flat ſteeple in the land.

About 5 leagues from land lyet a banke of 10 fatum, but it laſteth not long before you get againe deeper water.

The Jutiſh Riffe. Betwixt Boevenbergen & the Holmes lyet the great Jutiſh Riffe weſt into Sea, running over it in 12 or 13 fatum, then lyeth the Naze from you, n. w. & by north 24 leagues, running over it in 17 or 18 fatum, you may ſee the land, on the north-ſide it is groſſe ſand, on the ſouth-ſide ſtonie like as peaſe and beanes.

Weſt northweſt from Boevenbergen about 8 leagues it is 16 fatum deepe, groſſe ſtonie ſand ground 10 leagues from the land it is 20 fatum deep groſſe ſtonie land, like to peaſe.

Southweſt & by weſt from Boevenbergen about 9 leagues, it is 25 fatum deep, redde & black ſand ground that is the ground of Doggers-ſand.

Holmes. The Holmes is a plain pointe, going downe ſteepe on the northeaſt-ſide, upon the middeſt of the hill ſtandeth aſquare Church without a ſteeple. When that higheſt of the land is ſ. ſ. e. from you, and that you can but even ſee the north-end of it, then it 15 fatum deep, greoſſe roug ſand, with ſome little ſtones amonſt it.

Two leagues n. e. or as ſome ſay, ſomewhat more eaſterley, off from the north-pointe of the Holmes: to wit, betwixt the north-poynte and the Holmes, & the eaſter-pointe, lyeth a ſtone banck (in manner as the Trindel or Leſolde) upon which there is no more then 12 foot water, ſo that there remaineth about two third parts of the water betwixt that Stone-banck & the north-point, & the other third parte betwixt the eaſter-pointe and the foreſayd Stone-banck: there have divers ſhippes beene loſt upon it. The foreſaid eaſter-point lyeth about 4 leagues to the eaſtwards of the Holmes, and is alſo a hig ſteep poynt, as if it where the Holmes. Rigt thwart of this eaſter-point ſhooteth off a riffe almoſt a league of into Sea, which you may ſound about in 7 fathom. Some ſay, that men may ſayl throug betwixt that riffe and the land.

From the Holmes to Robſnot or Robbeknuyt, the courſe is n. e. 9 or 10 leagues.

A little to the weſtwards of Robſnot in the bigt towards the eaſtern-poynte, neareſt to Robſnot ſtand 5 Churches with flat ſteeples. There lye alſo two blewe lands, betwixt the eaſter-pointe and Robſnot, in the hig, you may ſee alſo a cloven hill or ſand-hill before you come to Robſnot. It is there all alongſt a flatt ſtrand.

To the eaſtwardes of the Holmes goeth in a little river called Miſdorp.

A little to the weſtwardes of that white cliffe or of Robſnot goeth in alſo a little River, where upon lyeth a little towne called Werlom.

Robſnot or Robbeknuyt is a high round hill, upon the toppe where of ſtandeth a Church with a ſharpe ſteeple. The land fallet away to the eaſtwards from this point, with a great bigt towards Hartſhals.

Thwart of Robſnot is farre off flat, 15 fatum depth, is allmoſt 3 leagues from the ſhoare.

There alſo thwart of Robſnot about 4 leagues from the ſhoare lyeth a banck off 9 fathom, lying alongſt the ſhoare.

Thwart of Robſnot lyeth alſo a roc about a league from the land.

Harts-hals. From Robſnot to Hartſhals is n. e. & by eaſt 4 leagues, there ſtandeth a flat ſteeple betwixt both, neareſt to Robſnot, there you may ſee the hig land of Lackley, alongſt over that hig land.

Hartſhals is a long ſmooth hill, which is at the eaſt-end ſomewhat ſteep.

Thwart of Hartſhals lyeth a ſhoale or ſtony grounds, about an Engliſh mile from the ſhoare, upon which, (as men ſayle) there have beene ſhippes loſt, but men doe ſeldome come neare it.

The Scawes From Hartſhals to the Scawe or Schagen the courſe is e. n. e. 8 leagues.

The land to the eaſtwards of Hartſhals is altogether ful of hommocks & ſand-hills, you may ſee the hig land of Lackley alſo alongſt over this land. Alongſt theſe coaſtes men finde none ſuch long plaine hilles, as are Boevenbergen, the Holms, Hartſhals and Robſnot.

Somewhat within the point of the Scawe ſtandeth a flat Church with a flat ſteeple, called Old Schagen, when that is ſ. ſ. e. from you, there runneth off from the ſhoare a little ſpitt or ſhoale, there you muſt edge ſomewhat off from the ſhoare, otherwiſe it is al alongſt a ſteep ſtrand betwixt Hartshals and the Scawe, but you may ſound about this little ſand in 4 and 5 fatum, ſo neare as you will.

Upon the eaſt-end or outermoſt point of the Scawe, ſtandet a fire beakon, like a cape to ſe to: when the Church is ſ. w. and by weſt from you, then are the fire beakon and the ſteeple on in the other, and then you are rigt thwart of the riffe of the Scawe, which lyeth of from the point e. n. e. & by north allmoſt a league into Sea.

He that commet from the weſtward, and wil ſaile alongſt by the land, about the riffe, muſt eſpecially be verie careful in uſing the lead, he may take the ſounding of the ſhoare, ſo neare as he will, according as the winde ſhal be, in 8, 7, 6, 5, 4, alſo wel in 3 fatum, without doing amiſſe, he neede not to feare: If he be but careful in uſing his lead, with a ſ. w. winde, he may ſail about it in 3 or 4 fatum.

When the fire beacon commeth to the eaſt-ſide of the houſes of the Scawe, then you come againſt the weſt-ſide of the riffe, when the fire beakon & the Church are one in the other, then you are on the eaſt-ſide of the Riffe.

When the fire beakon commeth about halfe wayes the houſes, neareſt the weſt-ſide, then you are right upon the point of the Riffe, what depth that you haven then you ſhal keep it ſtil, without finding it ſhoaler, whether you ſayle alongſt ſ. e. or n. w.

He that commeth from the ſouthwards, and is bound about the Scaw to the weſtwards may not ſound the Riffe, becauſe the ſouth-ſide of it is ſteepe & needle to, it is not good to come nearer it then 12, 13 or 14 fatum, eſpecially nigt or darke weather.

Marke of the Scawe riffe. For to knowne by certaine markes, when you are cleare of this Riffe, as wel over the one ſide as the other, then marke, comming from the weſtwards, when the old church and the fire-beakon are one in the other, then you come upon, the weſt-ſide of the Riffe: comming from the ſouthwardes or the eaſtwardes, when the old Church commeth in the ſoud-end of the village, then you come upon the ſoud ſide of the Riffe. When the ſteeple & fire-beakon are ſ. w. and by weſt from you, then they are one in the other, & then you are thwart of that Riffe. When the ſteeple is ſ. w. and ſ. w. and by ſouth from you, then you are without, or to the weſtwardes of that Riffe: when the ſteeple or fire-beakon is w. ſ. w. & weſt & by ſouth from you, then you are within the riffe. This you may ſet by nigt, by the compaſſe, and ſo may perceive wether you be within or without that riffe, when the Firemaker doth fire well. You may anchor on both ſides of the Riffe in 7 or 8 fatum, & haven come enoug to ſet ſayle. Some alſo ſay, that men may runne throug betwixt the riffe & the land: (If neede require 2 fatum & a half.

Tydes out of the Belt. Betwixt the Scaw and Maelſtrand or Norwaye it is all ſoft ground, the nearer to Norway the deeper water. When men come out of the Sound, & are in the farewaye, & can gett no ground in 18, 20 & 22 fatum, that is a ſigne that they are about the riffe of the Scawe.

When you come about the Scawe from the weſtwardes, and are bound to the Sound or the Belt, you muſt take an eſpeciall care of the tyde that commeth out of the Belt, which falleth commonly out of the Belt towardes Norwaye, eſpecially when the winde hath blown a

while

while eaſt or northeaſt it can carry a ſhip by night or darke weather under Norwaye, before you ſhould thincke of it, it did happen in the Yeare 1605 the 23 of May, that a ſhippe comming thwart of the riffe of the Scawe, ſo that the riffe did ly ſ. w. from her, did drive with calmes in 8 houres, untill ſhee came within 3 leagues neare to the land of n. e. about Harmens-hooft five leagues to the weſtwards of Maelſtrand, ſo great and ſtrong a current there did ſhote alongſt by the Riffe towards the n. e. although it doth ſeldome happen, that the tyde doth run there ſo ſtrong out, yet nevertheleſſe it behooveth men to be verie carefull, to conſider there of, and to reckon there upon.

From the Scaw to Sea-buye, the courſe is w. & by weſt 6 leagues, there it is upon the road 4 and 5 fathom deep. Betwixt the Scaw & Sea-buye lye the ſmall Helmes 4 leagues from the Scaw, and 2 leagues to the northwards of Sea-buye. When you will ſayle unto the Belt, you muſt leave them on the ſtarboard-ſide, going on ſtill ſouth and by w. untill thwart of Sea-buy, you may alſo ſayle throug betwixt the Helmes & the main land unto Sea-buy, if you will, there is at the ſhoaleſt betwixt them 3 fathom water, but about a Sea-board the Helmes, betwixt the Helmes & the north-end of Leſou, it is 4 leagues broad, and in the channell 10 fathom deep ſoft ground.

The lying of the Helmes, & how men ſhall come to anchor there, & alſo of all depths, ſhoale and dwale grounds, betwixt the Helmes, the Scaw, and Leſou, together with the deſcription of the Iſland Leſow and the Riffes that lye out thereabout it is deſcribed before.

Betwixt Leſou & Sea-buy lye many falſe grounds, which are very uneven of 3, 4, 5, & 6 fathom the like uneven and ſhoale grounds, lye alſo within or to the ſouthwards of Sea-buy, of 4, 5 and 6 fathom, but to the right channell through betwixt the falſe grounds of Leſou, & the ſhoals of Sea-buy is 7 & 8 fathom deep.

To the ſouthwards of the ſmall Helms and Sea-buy, nerer to the maineland thed Leſou, lye alſo ſome uneven dwale grounds, upon which there is no more water then 10, 11 and at ſome places 12 foot. He that draweth but 8 or 9 foot need not feare of them. You may for a need run through the ſmall Helmes.

For to ſayle in to Aelburger-deep.

From Sea-buy to Aelburger-deepe, ſ. & by w. 9 leagues, upon the north-ſide of the haven ſtandeth a flat ſteeple, called Hals, in the havens mouth lyeth a buy, and upon the ſouth land ſtand 2 Capes, which you muſt bring one in the other, by them you ſhall finde the buye, the channell lyeth in firſt w. & by ſ. about a cables length, then you muſt run up n. w. & w. rigt unto Hals, & run in by the north ſhoare, until thwart of Hals from the ſouthpoint of the land ſhotet off a flat, which you muſt avoyd: being thwart of Hals you muſt goe ſ. w. & by w. unto the Bight, and in the croked channel, you muſt ſhun the north ſhoare ſomewhat, & then againe n. w. & by w. alongſt by the north-ſide, unto the ſecond croked, and then ſ. ſ. w. & afterwards w. ſ. w. unto the Town, in the comming in by the buye, it is 2 fathom. But for to ſayle in there, it is beſt to take a Pilot. By the ſouth-ſhoare goeth in alſo a little deepe of 6 and 7 foot.

The towne Aelburg, lyeth up in the land 4 leagues, within the River: alſo there lyet along this coaſt to the weſtwards ſome bancks, there you muſt ſhunne the land ſomewhat.

When you ſayl from the Helmes to Stevens-head, throug betwixt the dwale-grounds and the flat of Sea-buy, you ſhall meet with a ſhoale ground, about half wayes betwixt Stevens-head and Sea-buy or 5, 6 & 7 fathom. This ſhoale is called the Swetering, & lyeth about 3 leagues eaſtwards from Aelburg-deep, the channell there betwixt them is about 10 or 12 fathom deep.

The Swereringh.

From Aelburgh-deep to Haſelin, the courſe is ſ. e. and by eaſt about 20 leagues.

Stevens head.

From Aelburg-deep to Stevens-head, the courſe is ſ. e. & by ſouth about 9 leagues. There betwixt them the land lyeth in a great Bay, where in lye the two little Townes Mariaker and Randerſen. Mariaker lyeth from Aelburgh-deep ſouth and ſouth & by weſt 4 leagues, & from Stevens-head 5 leagues. Betwixt Mariaker and Stevens-haven lyeth the River of Randerſen, which runneth up Crooked farre in to the land, unto the little Town Schandelburgh.

Mariaker. Randerſen.

Under the wood of Mariacker runneth a riffe from the ſhoare, and ſtretcheth neere to Stevens-hooft, by Mariacker neere unto the ſhoare it is 12 foote, and further 3 & 4 fathom faye ſandy ground, within the riffe it is 6 and a halfe & 7 fathom ſoft ground, a little without Stevens-hooft it is ſtony ground but neere the ſhoare it is ſandy ground.

Haſelin

From Stevenshead to Haſelin the courſe is e. ſ. e. 13 leag. Haſelin is on the outer-ſide ful of ſhoales, riffes & grounds. A larger deſcription of Haſelin and Anout as alſo of all the foule grounds and ſhoals, lying there abouts, you ſhall finde in the firſt Demonſtration of this Boock.

Oruntbuy. Chalck grounds.

A little to the ſouthwards of Stevens-head lyeth a little Town called Oruntbuy, there lye the Chalck-grounds rigt before the River of Grimſound in a bay a little about the poynt of Stevens-head: that is a ſand 2 or 3 foot water, but not far off it is 10 fathom deep, you may ſound them in 4 fatum. You may ſaile up into Grimſound, unto Grimſtee, that is a lading place for Huyes.

Great Helm.

From Stevens-head unto the great Helme, the courſe is ſ. ſ. w. about 6 leagues. The land lyeth from Stevens-head unto the poynt of Ebeltud ſ. ſ. w. 7 or 8 leagues. Ebeltud is a little Towne, lying within the land thward of the great Helme. Betwixt the great Helme and Jutland it is 6 and 7 fathom deepe. Cloſe by Stevens-head and the poynt of Ebeltud it is 8, 9 and alſo 10 fathom deepe. The great Helme hath two Riffes, one upon the northeaſt-ſide, and the other upon the ſouthweſt-ſide.

From Stevens-head to Siero the courſe is ſ. ſ. e. & ſ. e. & by ſouth 9 leagues. Betweene Siero & Stevens-hooft lye ſome ſhallowes, but neere Stevens-hooft there upon it is 3 and 4 fathom deepe.

From the ſoutheaſt-poynt of Svero lyeth off a riffe towards Ruſnes, where you may anchor behind it.

Wero.

From the great Helme unto the Iſland Wero, the courſe is n. n. w. and ſ. ſ. e. 4 leagues diſtand, there it is 4 & 5 fatum deep. From Wero there runnet off a ſhoale unto Kyholm & about Kyholm: and about Kyholme and alſo about the little Iſland Samps, it is alſo full of ſhoale grounds, which run off unto the great Iſland Sampſo.

Kyholme.

Samps.

From the great Helm unto the Iſland Samps it is ſ. w. & northeaſt 4 leagues.

Sampſo

From the north-end of Iſland Sampſo there ſhoteth of a little Riffe north into the ſea, you muſt ſound cloſe about by it for to come into the road of Sampſo, when you wil anchor there. It is there in the road 10 fatum deepe, & you ſhal be there under the Swan-grounds ſheltred for all winds.

Aerhuyſen.

From the ſouth-end of Ebeltud to Aerhuyſen, the courſe is weſt & by ſouth & w. ſ. w. 5 leagues. It is there all the ale water of 2 & 3 fatum deep. He that will anchor in the road before Aerhuyſen, let him bringh the great ſteeple in the midſt betwixt the two other ſharp ſteeples, there is the beſt ground and good, & good road in 3, 4 and 5 fathom, ſo ſhoale as you will. To the ſouthwards of Aerhuyſen goeth in the Wederſound betwixt Judland and Sampſo: he that will ſayle in there, muſt bee well acquainted, for it is there all full off riffes and ſhoals. You may not alſo uſe that fareway by night, by reaſon of all the ſand and ſhoals, and alſo by day you muſt be very carefull and circumſpect in loking out, and not ſpare your lead, but you may anchor & have road there every where.

Wederſound.

For to ſayl throug the Wederſound.

When you will ſayle through the Wederſound, comming of from the great Helme or Ebeltud, you muſt leave the Iſland Tuns & the Swane-grounds on the larboard-ſide, running all alongſt by the Juttiſh coaſt in 2 or 3 fathom, untill paſt Horſens, or the Iſland Endelau, which you may not ſaile to, not come neare from the weſtwards, by reaſon of all the grounds, which lye before it on the weſt-ſide. It is narrow channell betwixt Endelau and the main land, lying from the Wederſound through the Swan-grounds ſouth, it is on both-ſides ſhoale, and but a Creeck for to ſayle through.

Swangronds.

When you come of from the Melverſound & will ſayle throug the Wederſound, it is beſt to runne alongſt by the Juttiſh-ſide until thwart of the River of Horſens, then you muſt edge ſomewhat of there from the land, & ſayle right with the Iſland Tons, & ſo you runne throug betwixt the Norther and Souther-ground, leaving the Iſland Tons on the ſtarboard ſide. When you are then paſt Tons, you ſhal

runne

runne out cloſe by the north-point of Sampſo, towards the land of Ebeltud, it is altogether one courſe from Horſens to Tons, and forth to Sampſo, and the point of Ebeltud, to wit, n. e. and ſ. e. 8 or 9 leagues.

elver- From Horſens, or that Iſland Endelaw unto the Melver-
nd. ſound, the courſe is ſouth and ſouth & by weſt, 7 or 8 leagues. The Melverſound is a deep ſound of 20 & 25 fatum, very crooked to come into, it goeth in betwixt Fuynen & Jutland, which are both high lands. From the Iſland Ebelo unto Melverſound the courſe is ſ. w. and ſ. w. & by ſouth 5 great leagues.

belo. From the road of Sampſo to Ebelo the courſe is ſouth and by weſt 5 leagues. From the ſouth-end of Sampſo to Ebelo the courſe is ſ. w. and by ſouth 4 leagues.

oems. From Sampſo to Roems the courſe is ſ. e. & by ſ. w. and by weſt 8 leagues. The little Iſland Ebelo lyeth of a league from the ſame, rigt before Bouwens, but you cannot ſayle througt betwixt the Iſland & Fuynen. To the ſouthwards of
Road the Iſland lyeth a great rocke under water, betwixt this rock
fore & the Iſland is the road before Bouwens in 8 & 9 fatum.
ouns. Betwixt Syro and Wero lyeth a dangerous riffe, long & broad, lying further then halfe way to Syro. When you will runne throug betwixt the two foreſaid Iſlands a weather of Ruſſeneſſe, you muſt leave at leaſt the two third parts of the water on the ſide of Wero, & goe in ſ. ſ. w. towards Roem, which is 9 leagues diſtant.

aters- The foreſaid riffe is called Haters riffe, is on the eaſt-ſide
ffe. very hard and ſtony, hee that commeth from Boltſack, he ſhall run cloſe to the Iſland Wero, for to avoyd that riffe, the channel betwixt the riffe and Wero is not very broad, & 3 fatum, or 3 fatum & a halfe deep. He that commet from Roems or Ruſnes, and will ſaile throug Wero ſound, let him bring the great Helm to the eaſt-ſide of Wero, & keep them ſo ſtanding ſailing on ſo rigt with them, he ſhall (ſo doing) take no hurt of Haters riffe. Betwixt Syro & Haters riffe & ſomewhat more ſouthwardly, the ground is very uneven of 5, 6, 7, 8 & 9 fatum. On the ſouth-ſide of Haters riffe it is good anchoring for notherly winds, in 6 and 7 fathum.

Ruſnes and Spiro lye n. n. e. and ſ. ſ. w. about 5 leagues aſunder.

From the point of Ruſnes runneth off a little riffe to ſeawards, but to the eaſtwards of it betwixt Ruſnes and Haſeleyn, lyeth off a riffe at leaſt 2 leagues into Sea, which lyeth dry at the end, & by it, it is very ſteep, cloſe alongſt by the end, it is 8 fatum deep.

allen- From Ruſnes to Spro it is ſ. & by e. 8 or 9 leagues. Be-
urgh. twixt Ruſnes & Spro lyeth Callenburch, which is alſo a lade place, & about 2 leagues to the ſouthwards of Callenburch lyeth a flat alongſt the coaſt about a league from the ſhoare of 5 fatum depth, you muſt alſo avoid the ſouth corner of Callenburg, for there ſhooteth of a riffe halfe a league into Sea, there is alſo to the northwards a long flatt alongſt the ſhoare, but not deep to the Sea-wards, betweene Callenburg & Ruſnes it is good lying for an eaſterly wind.

From the eaſt-end of Spro runnet of a little riffe or ledge of rock, & over againſt it commeth alſo a flat ſhooting of from the land, betwixt them both it is 4 & 5 fathum deep. Going on the ſouth-ſide of Spro it is alſo very foule, more then halfe a league without the ſhoare. But behinde or
aſſeur. thwart of Spro lyet Caſſeur, a faire Haven, where men doe lye at the Kay, & let their goods be carned into the ſhips, where alſo it is betweene both 14, 15 & 16 fatum deep, but in the middle of the fareway lye ſome banks, where there is no more then 5 & 6 fatum water, good ſtrand ground.

From Spro to Langeland the courſe is ſouth & ſouth & by eaſt 4 leagues diſtant. He that commeth alongſt to the eaſtwards of Wero, throug the channell betwix Wero & Haters riffe, & will ſaile to Roems, let him go on due ſouth & by eaſt, & then he ſhall runne alongſt about an Engliſh mile to the eaſtwards of the Boltſak, & fall with the land a little to the eaſtwards of Roems: likewiſe he that goeth from Roems, or a litle to the eaſtwards of it, on n. & by w. hee ſhall foll betwixt Wero & Haters riffe rigt in the fareway. Betwixt Roems & Fuynen you may run throug in 2 fatum, but with great ſhips you cannot goe throug there.

From the north-end of Fuynen ſhooteth of a little riff about an Engliſh mile into Sea. About a league eaſt & by north from Roems lyeth a ſhoale of 3, 4 & 5 fatum, which is ſteep & ſhoaleth up ſo ſuddenly, that a man, not knowing of it, & finding it ſo by the lead, ſhould be affrigted at it. To the ſouthwards of Roems, in the land of Fuynen lyeth a Carre-
little towne, for to lade, called Cartemonde. The Haven monde.
goet in from the eaſtwards, & it is ſhoale on the weſt-ſide, there lye no buyes in the Havens mouth, there is no moe water then 5, 6, or ſometimes 7 foot.

From Roems to Spro, the courſe is ſ. e. 5 leagues. Be- Spro.
twixt Spro & Knuytſhead, it is 12 & 13 fatum deep, but betwixt Roems & Spro, it is 10 & 11 fatum deep.

Even about to the ſouthwards of the poynt of Knuyts- Nyburg
head in Buyen, lyeth the Haven of Nyburg, when you are about the poynt, you runne rigt up to the towne, about n.w. a league, there it is 6 and 7 fatum deep. Men doe lye there with ſhips to the Kay, and let their goods bee carried in whar they will.

From Knuytſhead to Langeland the courſe is ſ. e. 4 leagues, & then you leave Spro lying on the ſtarboard-ſide. From the ſ. w. end of Sproo ſhooteth of a little riffe which you muſt avoid. At the nord-end of Langeland lyeth the
The litle Iſlands of the Friſſel, which are round about very foule. Friſſell.
From Knuytſhead to the Iſlands Taſſing, the courſe is ſ. & ſ. & by e. 4 leagues, & then leave the Friſſel lying on the larboard-ſide, & run throug betwixt the Friſſel & Fuynen.
Swine- If you be bound to Swineburg, then go from the Fiſſel to burgh.
the ſoutheaſt-end of Fuynen, on ſ. ſ. w. & you ſhall meet a litle Iſland which you may run about on both ſides of it. Throug betwixt Taſſing, and that little Iſland, or may run alongſt by the land of Fuynen, untill that you come to the little Towne of Swineburg, which lyeth over againſt the Iſland of Taſſing. Over againſt the point of Fuynen lyeth a little Iſland called Olms, then you muſt goe up to the Olms.
weſtwards. You may alſo runne about on the other-ſide of Taſſing, and leave the Iſland Art with the foule grounds (which lye betwixt Art & the ſoutheaſt-end of Fuynen) on the larboard-ſide of you, it is no deeper upon theſe grounds then 6 foot. Now when as that you ſhall come by the little Iſland Olms, or by ſoutheaſt-poynt of Fuynen, then you muſt (as before is ſaid) goe up to the weſtwards about the poynt of Fuynen towards Woburg. Upon the ſouth-ſide of theſe foreſayd grounds goeth alſo a Deepe throug w. & w. and by ſ. throug betwixt the grounds & the Iſland Arr: upon this Iſland Arr lyeth a little Towne called Kopingh. Koping
This foule ground is 3 leagues long, & that Iſland Arr is alſo 3 leagues long, they lye both of them e. & w. & the Munk Iſland lyeth at the end of theſe grounds before Woburg in Fuynen, which hath two riffes, the one ſhooteth of from the ſ. e. & e. into Sea, the other from the north-poynt n.e. into the Sea. When you ſaile throug to the northwards of theſe grounds, to wit, betwixt Fuynen & theſe grounds, towards Woburg, you ſhall alſo meet with the foreſaid Munk, with another little Iſland of two more, leave them lying on the larboard-ſide, and run all along by the land of Fuynen, about w. and w. and by nord. Unto the poynt of Asken, Askens.
which is about 6 leagues diſtant from the ſ. e. poynt.

From the eaſt-point of Askens unto the little Iſland To- Toreu.
reu, the courſe is w. & by n. & w.n.w. 2 leagues, & to Areu w. ſ. w. 3 leagues, theſe two litle Iſlands lye one over againſt the other, the one on the ſide of Jutland, & the other on the ſide of Fuynen, men runne throug there betwixt 2 rifs, wich run of one againſt the other, it is there 4 & 5 fatum deep.

To the n. w. or weſtwards of Areu lyeth the Sound off Sound
Hadderſleu, which lyeth in about weſt & by ſouth, upon it of Had-
lyeth the Towne Hadderſleu 2 leagues within the land. derſleu.

From Areu of Toreu to Melverſound, the courſe is n. n. w. 5 leagues, which you muſt run into from the ſouthwards firſt weſtwards unto the Sound of Coldingen, being Sound
a broad Sound, which goeth a league into the land, if you off Col-
will goe throug the Melverſound, you muſt leave on the dingen.
larboard-ſide, and goe up to the eaſtwards unto the Towne of Melver, where you come then againe into a Crooked channell. The Melverſound goeth out to the northwards with a very crooked channell, & you come out againe upon the broad water to the northwards of Fuynen, as is before ſayd. You may alſo ſayl of from Areu into the Sound of

Apenrade. Aelſem alongſt ſ.ſ.w. unto Apenrade, and then about behind the Iſland of Aelſem, untull you come into the Sound of Flensburgh.

The Melverſound and the little Iſland Areu lye ſ.ſ.e. and n.n.w. one from the other.

To ſayle out of the Aelſem-Sound from Areu or the Melverſound, then goe from Areu or Toreu unto the Roen e.ſ.e. 3 leagues, and then through betwixt the Iſland and Fuynen, that is alongſt to the northwards of Roen, for you can not goe about to the ſouthwards of it. The Roen is a bad and ſhoaly Riffe, ſhoting of from Aelſen, where unto it is faſt, the outer-end of it lyeth dry like Anout Riffe. From the Roen to Arr or Koping, the courſe is eaſt & by ſouth 5 leag.

The Roen.

From the ſoutheaſt-end of Aelſt ſhoteth off a great Riffe towards Arr called the Poles Riffe, you muſt run betwixt Arr and that Riffe, leavingh two third parts of the water on the Aelſen-ſide, and one third parts towards Arr, and runne on ſo with the ſouth-end of Langeland, untill that you come againſt Copen.

Poles Riffe.

From Arr to the ſouth-end of Langeland, the courſe is e.ſ.e. 4 leagues. And from the Poles Riffe to the ſouth-end of Langeland, the courſe is weſt and weſt & by north 6 leag. You may through betwixt Langeland and Arr to the northwards, and come out againe into the Belt by Nyburg: from the ſouth-end of Langeland to Taſſing, it is north 6 leagues, you may ſayl about Taſſing on both ſides, and leave Arr and the foule grounds, lying on the one ſide of you. Upon theſe grounds it is but 6 foot deep.

Taſſing.

You may alſo ſayle through betwixt the foreſayd grounds and Fuynen into the ſound of Aelſen, unto the little Iſlands of Areu and Toreu, as hath been ſayd here before.

The Sound of Apenrade.

From the little Iſland Areu tot Apenrade, the courſe is ſouth and by weſt 5 leagues. The Sound of Apenrade is a broad open Sound, upon which lyeth the foreſaid Towne of Apenrade.

From the River of Apenrade unto the croked channel of Sonderburgh, which goeth in betwixt the Iſland Aelſen and the maine land, the courſe is eaſt 3 leagues, there you may ſayle throug about behinde the Iſland of Aelſem to Sonderburgh, and then forth into the Sound of Flensburgh. It is very narrow and crooked betwixt the Iſland and the mayne land, but when you are come throug the narrow and croked channell into the Sound of Flensburgh, there it is broader and larger.

Sound of Flensburgh.

The Sound of Flensburg goeth in betwixt Sonderburgh and Holſterland, being a broad ſound. He that will ſayle in there, muſt take very good heed of the Holſter-ſide, when you behin to come betwixt the two lands, and run in alongſt hy the land of Aelſt; for from Nubell or Holſterland lye of the Chalk-grounds halfe wayes the deep. This ſonnd lyeth in weſt and by ſouth, untill that you come before the River. There lyet in the Rivers mouth a litle Iſland on the ſtarboard ſide, you muſt run into the eaſtwards of it, and goe in weſt and by ſouth & weſt, until you come within the croked channell of the River or Sound, and then you muſt goe up againe ſ.w. then you ſhal ſee the towne of Flensburg lye before you.

Chalk-ground.

To the ſoutwards of the Sound of Flensburg lye yet three Sound of Rivers, where great ſhips may goe into, to witt, the Sley, Nylhofvoert and the Sound of Kiel, the land lyeth of from Flensburg to Kiel ſ.ſ.e. or ſomewhat more eaſterly ſix leagues.

The Sley.

From Sonderburgh to the Sley, the courſe is ſ.e. and by eaſt 4 leagues, that is a broad deepe Sound, lyingh in firſt about weſt and when you are within it, then it runneth in about ſ.w. and by weſt paſt Sleeswyke, there alſo come ou may great ſhips. The Town Gottorde lyeth alſo upon this River.

Nylhofvoert.

Betwixt the Slye and Kiel lyeth Nylhofvoert upon it lyeth a little Towne, called Eeckelenfoort.

Kiel.

The Sound of Kiel is a broad Sound, which lyeth in about ſouthweſt, there you may goe in alſo with great ſhips. From Kiel to the weſt-end of Femeren, it is eaſt & by north about 8 leagues.

Femeren.

From the Poles-Riff to Femeren (over the Coelberger-Heyd) the courſe is e.ſ.e. 13 or 14 leagues, but from the ſouth-end of Langeland unto Femeren it is ſ.e. and by eaſt 8 leagues. The channell betwixt Femeren and Laland it is 5 and 6 fatum deepe, you may ſayle round about Femeren, there it is all ſhoale ground. Betwixt Femeren and Holſterland you may run throug in 8 or 10 foot, there lyeth a little Town, called Heyliger-haven, where you may anchor with ſhips of ſmall draughts for to lade Wheat or Barley. From the Iſland Femeren to Geſter-Rif, the courſe is eaſt and by north 10 leagues. But from Femeren to the Trave of Lubek, ſ.ſ.w. 10 leagues, there goeth in a good deep for great ſhips, it is deep upon the banck 12 foot water.

Heyligerhaven.

There is alſo a great bay and a good Haven, when men may lye ſafe for all winds, except the n.e. and n.n.e. winds. From the Trave of Lubeck to Geſter-rif, the courſe is n.e. and ſ.w. about 19 leagues.

From the Trave of Lubeck to Wiſmer-deep, the courſe is firſt n.e. and by eaſt, and then e.n.e. there goeth in a fayre deep for all ſorts of ſhips.

Deep of Wiſmer.

For to ſayle in at the deep of Wiſmer, bring the ſteeple upon the South-land ſouth from you, and ſayle ſo in untill that the ſteeple ſtanding upon the eaſt-land, by that eaſtermoſt-houſe, commeth to the 5 or 6 houſes, by theſe houſes ſtand ſome threes together. From that eaſt-land runneth of a little Riffe, lying of n.w. and by north from it, when the ſteeple commeth to theſe Houſes, then goe in ſ.ſ.e. in that deepe is 12 foot water. In the Summer there lye two buyes in the havens mouth, the one upon the tayle of the ſand that ſhoteth of from the eaſt-land and the other upon the ſhoale ground, you muſt run in betwixt them. This deep of Wiſmer lyeth from Femeren ſ.ſ.e. diſtant about 7 or 8 leagues, but from Wiſmer to Geſter-riffe, the courſe is northeaſt 12 or 13 leagues.

About ſouth from Geſter-Riffe lyeth Roſtik, there goeth in alſo a good deepe of 10 foot, it is there very flat, you may ſound it on both ſides with the ſounding-pole. Wiſmer and Roſtick lye about 8 leagues aſunder.

Roſtik.

Somewhat to the eaſtwards of Roſtick lyeth a high land called Robbeneſſe, from it ſhoteth of a great Riffe or ſhoale to ſeawards, towards Geſter-Riffe, it is betwixt Geſter-Riffe and that ſhoale not deeper then 12 or 13 fathom. If you come neareſt to Geſter-Rif, then it doth ſhoale up ſuddenly, but if you come nearer this ſhoale, then it ſhoaleth by little. Geſter-Riffe (as hath been beforeſayd) is a ſhoale Riffe, and runneth of at leaſt 3 leagues into Sea.

Robbeneſſe.

A little to the eaſtwards of this foreſaid ſhoale lyet Barts, there goeth in a deepe of 6 foot, at the weſt-poynt goeth of a Riffe, which men muſt avoyd.

Barts

The Iſland Langeland is about 8 leagues long, and lyeth ſouth and north, to the eaſtwards over againſt it lyeth the Golverſound, lyingh into the northwards of Laland, all alongſt up unto Neſtvelt and Wordenburgh, and commeth into the Greenſound, and in the Wolve-gat, and again into the Eaſt-Sea. Before the Golverſound lye three litle Iſlands, the one at the poynt of Laland, which is called Wedero, and is alſo faſt to it with a Riff, ſo that men cannot ſayl throug there betwixt them; to the northwards of it men doe runne into the Golverſound, leaving that Iſland on the ſtarboard ſide. The other two lye to the northward of the foreſayd Iſland of Wedero, the one is called Arnis, and the other Ooms. Ooms is a little playne Iſland, but Arnis is the greateſt, which lyeth neareſt to Zealand, and is full of trees. From the Iſland Ooms lyeth of a Riffe ſ.w. to Seawards, which is a great league long, and upon the end flat, which men may runne over by the lead. When you will ſayl into the Golverſound, you muſt leave theſe two Iſlands, lying on the larboard ſide. The Iſland Laland hath upon the weſt-poynt over againſt the ſouthend of Langeland a Riffe or Hoke, lying off from Laland at leaſt half wayes over the Belt: For to avoyd that, you muſt runne alongſt within an Engliſh mile to the eaſtwards Langeland; or when that you leave the two third parts of the water on Lalands ſide, and the other third part on the ſide of Langeland, you ſhall not come to neare it. When you come from the ſoutwards and are bound into the Belt, and that then the ſteeple of Maſcon, which ſtandeth upon Laland, commeth to ſtand n.e. and by eaſt from you, then you are paſt that Riffe, and lyeth to the ſouthwards of you: It is here in this Channell betwixt Laland and the ſouth-end of Langeland 5, 6 and 7 fathom deep.

Golverſound. Wedero. Arnis. Ooms. Riffe on Laland.

From

From the ſouth-end of Langeland to Femeren the courſe is ſ. e. and ſ. e. and by eaſt diſtant 8 leagues.

When as you come of from Langeland & are paſt the riffe or Hooke of Laland, then the ſouth Coaſt of Laland lyeth eaſt and weſt: alongſt by it lyeth a ſand, which is called the Red-ſand, and lyeth alongſt untill before Golverſound which runneth in betwixt Laland and Geſter.

Red-ſand.

Aelholm. Roobuye.

To the northwards of this ſand is a roade of 14, 16 & 18 foot water, before the little townes of Aelholm and Roobuy, where men do lade nuts and Barley.

Betwixt Laland and Geſter, thwart of this Red-ſand (as hath been ſayd) runneth in the Golverſound, which men may run into, and come out againe into the Belt, but in this ſound or channell there is little depth, there lyeth a ſtone banck within thwart over the channell. The little town Nicoppen lyet upon the Iſland Falſter a league within Geeſter. From Geeſter ſhooteth of Geſter-riffe, at leaſt 3 leagues into Sea, which is a ſhoale riffe.

Nicoppen. Geſter-Riff.

To the eaſtwards of Geſter rif lyet an Iſland called Bout, it is there abouts all ſhoale water; to witt, 3 and 4 fathom.

Bout.

To the eaſtwards of Bout goeth in the Greenſound, by the little towne Stuybekuype, & commeth out again into the Belt to the northwards of Laland: the Green-ſound lyeth in about w. and w. and by n. in 3 fathom, there lyeth a ſhoale on the larboard-ſide of the mouth of the Sound, called the Tolck, which men muſt avoid: you muſt goe into the eaſtwards of it, you may lead it in alongſt by the land of Meun, in 14 or 15 foot, that foreſayd town Stuybekuype lyeth about a league within the mouth of the channell.

Greenſound. Tolck. Stuybekuype.

From Geſter riff to Meun, the courſe is n. n. e. 7 leagues: but from Bout to Meun it is n. e. about 6 leagues.

From the Gelverſound to Meun, the land lyeth in a bay you may anchor therefor a n. e. n. n. w. & weſt winde, in 5 and 6 fathom.

Meun.

He that commeth out of the Sound, and is bound to the ſouthwards of Meun, may come ſo near Meun as he will, and luffe up to the weſtwards by the point, & anchor where he pleaſe, in 5 or 6 fathom. On the north-ſide of Meun you may alſo anchor in 6 fathom, behinde a little riffe that ſhoteth of from the north-poynt, for an e. ſ. ſ. w. and weſt wind, it is there all over flat, and good ground.

Of the Depths about theſe Places, and in what Depths men may ſee the Land.

In the Ripe, Eyder and Hever, a ſouth & north Moone maketh the higeſt water, the floud commeth there out of the n. w. and the Ebbe out of the ſ. e. and ſo run over the north grounds.

In the deep of Liſt or Silt, a ſouth and north Moone maketh the higheſt water, the floud commeth there out of n. w. and falleth very little alongſt the land, and the ebb to the contrary.

In Knuytsdeep, a ſ. ſ. w. and n. n. e. Moone maketh the higheſt water. The floud commeth there alſo out of the n. w. & falleth but a great quarter tyde alongſt the land, and the ebbe to the contrary.

In the Haven of Zuyder-zyt, the Growe-deepe, the Schellingkroegh a ſ. ſ. w. and by n. n. e. Moone maketh the higheſt water, the floud commeth there alſo out of the n. w. & falleth over the Reefshorne towards the Juttiſh Iſland, & the ebbe againe to the contrary, off from the land in the nord Sea.

Of the Grounds and Depths.

The grounds of the Hever and the banckes of the Small-deep without ſtrand and Eyderſtee, lye at leaſt 2 leagues without the coaſt of the land.

Betwixt Holyland and Ameren or ſtrand it is 10 or 11 fathom deep, in that depth you may ſee both the lands, if you climbe up in the ſhroudes. Strand is to bee knowne by te ſteeple of Pielworme, ſtanding upon the ſoud-end of the land: Upon the Iſland ſtrand ſtand more Churches and ſteeples, but none ſo eaſy to be knowne as Pielworme.

Ameren is a league and a halfe long, and hath all alongſt low ſandhills growne with ſpiry groſſe.

The Iſland Silt you may ſee in 10 fathom: Upon this Iſland (neareſt to the north-end) lyeth a hig ſteepe red kliffe, on both ſides going ſloping downe; upon the ſouth-ſide of the cliffe ſtandet a flat Church, which a low ſteeple, & to the eaſtwards of it another Church, with a hig thik ſteeple called Heydom. The nord-end of Iſland is called Liſt, & the ſoud-end Voortrap.

Courſes and Diſtances.

From the Eyder to Hever the land lyeth n. n. w. & ſ. ſ. e. 5 leagues

From the Hever, or the ſouth-end of ſtrand to the ſouth-end of Ameren n. n. w. about 5 leagues

Two leagues north from Ameren lyeth Silt, which is about 5 leagues long, and lyeth ſouth and by eaſt, & north and by weſt.

From the nord-end of Silt, called Liſt, unto the ſoud-end of Rim or Rem, it is n. e. & ſ. w. 1 great league, Rem is 3 legues long, & lyet moſt ſoud & nord.

From the north-end of Rem, to the ſouth-end of Manu, it is n. e. & ſouthwards a league and a halfe, you can hardly get ſigt of it by reaſon of the grounds, & great ſhoals, which lye thwart of it Seawards.

Manu and Phanu lye about 2 leagues one from the other, Manu is almoſt a leagues long, and Phanu about 4 leagues long, and lyeth from Phanu Knuyters to Knuyters-deepe, ſ. ſ. e. and n. n. w. This Iſlund hath alſo a faire ſtrand, but the north-end towards Grouwe-deep is very flat.

From Phanu to Doodenberge it is about 4 leagues, betwixt them lye the Havens of the Growedeepe and Schellingkroeg.

From Holyland to the Eyder eaſt and by n. and w. and by ſouth 7 leagues

From Holyland to the outermoſt buy in the Hever, n. e. and ſ. w. 8 leagues

You may lye by the outermoſt buye in the Hever, and ſee Holyland with cleare ſight.

From Holyland to Ameren or ſmall-deep, n. n. e. ſomewhat eaſterly, and ſ. ſ. w. ſomewhat weſterly 10 leagues

From Holyland to the deepe of Silt or Liſt, n. and by eaſt 17 leagues

From Holyland to Knuyts-deep or Ryper-deep, north and north and by eaſt 23 leagues

From Holyland to the Horne or the Doodenberg n. & ſ. 30 leagues

From Knuyts-deep or the Iſland Phanu to the Flye, ſ. w. & by n. 56 leagues

From the Iſland Silt to the Fly n. e. and ſ. w. 46 leagues

From the Doodenberg or the Horne, to the Haven or Numen or Rinkopper-deepe, north and by weſt 7 leagues

From the Rinkopper-deep, or the Haven of Numen to Boevenbergen north and by weſt about 10 leagues

From the Doodenbergh to Boevenbergen, the land of Jutland lyeth north and by weſt, and ſouth and by eaſt 17 or 18 leagues

From Boevenbergen to the Helmes n. n. e. 9 leagues

From the Holmes to Robsnot or Robbeknuyt n. e. 9 or 10 leagues

From Robsnot to Hartshals n. e. and by eaſt 4 leagues

From Hartshals to the Scawe or Schagen e. n. e. 8 leagues

From Rinkopper or Numer-deep to the Fly ſ. ſ. w. or a little more weſterly about 58 leagues

From Boevenbergen alongſt Jutland, without the grounds unto the Elve or the outermoſt buy ſouth and by eaſt about 48 leagues

From Boevenbergen to Holyland, ſouth and by eaſt ſomewhat ſoutherly about 43 leagues

From Boevenbergen to the Flye or Borne-riffe ſ. ſ. w. about 67 leagues

From Boevenbergen to the Northforland, ſ. w. & by ſ. 118 or 120 leagues

From Boevenbergen to the Holmes before Yarmouth ſ. w. 93 leagues

From Boevenbergen to Flambroughead w. ſ. w. ſomewat ſouterly 98 leag.

From Boevenberge to Scharbroug w. ſ. w. ſomewhat ſoutherly 100 leagues

From Boevenbergen to the River of New-caſtle or Tynemouth weſt & by ſouth about 106 leagues

From Boevenbergen to Boeckenes w. and by n. about 106 leagues

From Boevenbergen to the Naze n. w. & by north 24 leagues

From the Riffe in 16 fathom to the Fly ſouth and by weſt 65 leagues

From the Riffe in 18 fathom to the Strait betwixt Callice & Dover ſ. ſ. w. about 120 leagues

From the Holmes to the Naze n. w. about 19 or 20 leagues

From the Holmes to Fleckery n. w. and by north 19 leagues

From the Holmes to Mardouw north 27 leagues

From the Holmes to Longſound n. and by e. 35 or 36 leagues

From the Holmes to Ferderoer n. n. e. 40 leagues

From the Scawe to Tynemouth w. ſ. w. 130 leagues

From the Scaw to the Naze weſt 33 leagues

From the Scaw to Fleckery weſt and by north 25 leagues

From the Scaw to Reperwick w. and by n. and n. n. w. 24 leagues

From the Scawe to Maerdowe n. w. and by weſt 20 or 21 leagues

From the Scawe to the Longſound n. w. and by n. or little more northerly 22 or 23 leagues

From the Scawe to Ferderoer north and by weſt 23 leagues

From the Scawe to Otturen n. and by e. ſomewhat eaſterly 42 leagues

From the Scawe to Maelſtrand e. n. e. 13 leagues

From the Scawe to Nidinck eaſt and by ſouth 15 or 16 leagues

From the Scawe to Waersbergen e. ſ. e. 19 or 20 leagues

From the Scawe to the Trendels ſ. e. 8 leagues

From the Scaw, about a Sea-board, the Trendels ſ. e. and by e. 8 leagues

From the Scaw to Leſou ſ. ſ. e. 8 leagues

From Scaw to the ſmall Helmes ſouth 4 leagues

From the Scaw to Sea-buy ſouth and by weſt 5 leagues

From the Helmes to Sea-buy 2 leagues

From Sea-buy to Aelburger-deep ſouth and by weſt 9 leagues

From Aelburger-deep to Mariacker ſ. and ſ. and by w. 4 leagues

From Aelburger-deep to Stevens-head ſ. e. and by ſ. 9 leagues

From Aelburger-deep to Haeslin ſ. e. and by e. 20 leagues

From Stevenshead to Haeslin e. ſ. e. 13 leagues

From Stevenshead to great Helme ſ. and by w. about 6 leagues

From Stevenshead to the point of Ebeltud ſ. ſ. w 7 or 8 leagues

From Stevenshead to Syro ſ. ſ. e. and ſ. e. and by ſouth 9 leagues

From the great Helme to Wero ſ. e. 4 leagues

From the great Helme to Sampſo ſouth 4 leagues

From the ſoud-end of Ebeltud to Aerhuyſen w. & by ſ. & w. ſ. w. 5 leagues

From the road of Sampſo to Ebelo ſouth and by weſt 5 leagues

From the ſouth-end of Sampſo the Iſland Ebelo, ſ. w. & by ſ. 4 leagues

The Northweſt-coaſt of Fuynen ſ. w. and by weſt 8 leagues

From Endelaw to Melverſound ſ. and by w. 6 leagues

From Ebelo to Melverſound ſ. ſ. w. ſomewhat ſoutherly 5 leagues

From Sampſo to Roems ſ. e. and by ſouth 6 leagues

From Syro to Rosnes ſ. ſ. w. 5 leagues

From by weſt Syro to Roems ſ. ſ. w. and ſ. and by w. 9 leagues

From Wero to Bultſack ſouth and by weſt 4 great leagues

From Wero to Romps ſ. and by e. 8 leagues

From Romps to Knuytshead ſ. and by e. and ſ. ſ. e. 5 leagues

From Knuytshead to Langeſand ſ. e. 4 leagues

From Knuytshead to the Iſland Taſſing ſ. and by eaſt 4 leagues

From the ſ. e. end of Fuynen the eaſt-point of Asken, w. & w. & by n. 6 leag.

From the point of Askens to the litle Iland of Toreu, w. n. w. & w. by n. 2 lea

From Areu to Melverſound n. n. w. 5 leagues

From the point of Rusnes in Zealand, to the Iſland Fyro, n. n. e. and ſ. ſ. w. 5 leagues

From Rusnes to Casseur s. s. e.	9 or 10 leagues
From Spiro to Langeland south and south and by east	4 leagues
From the north-end of Langeland to the south-end, south	8 leagues
From the south-end of Langeland, to the Island Arr, the course is w. n. w.	4 leagues
From the Island Arr or Koping, to the Roen, w. and n.	5 leagues
From the Roen, to the little Island Areu, w. n. w.	3 leagues
From Areu to Apenrade, south and by west	5 leagues
From the River of Apenrade to the Strait of Sonderburge	3 leagues
From Sonderburgh to the Sley, s. e. and by east	4 leagues
From the south-end of Langeland to Femeren, s. e. and by east	8 leagues
From the Pools-riffe, lying on the Island Aelst to Femeren, the course is e. s. e.	13 or 14 leagues
From the Slye to the Kiel s. e.	4 leagues
From Kiel to Femeren, the course is east & by north	8 leagues
From Femeren to the Trawe of Lubeck s. s. w.	9 or 10 leagues
From the Trawe of Lubeck to Wismer-deepe, the cours is first n. e. and by n. and then e. n. e. in all	9 leagues
From Rostick to Robbenes, the course is n. e.	4 leagues
From Robbenesse to Doornbosch n. e. and by east	7 leagues
From Femeren to Wismer-deep, s. s. e.	7 leagues
From Femeren to Rostick, e. s. e.	8 or 9 leagues
From Femeren to Gester-riffe, east & by north	9 or 10 leagues
From the Trave of Lubeck to Gester-riffe n. e.	19 leagues
From Wismer-deep to Gester-riffe n. n. e.	12 or 13 leagues
From Rostick to Gester-riffe, the course is north	7 or 8 leagues
From Gester-riffe to Doornbosch, the course is east	9 leagues
From Gester to Meun n. e.	7 leagues.

How these Lands doe shew them selves at Sea.



Thus sheweth the Land of Eyderstee to the northwardes of the Eyder.



Thus sheweth the Island Ameren.



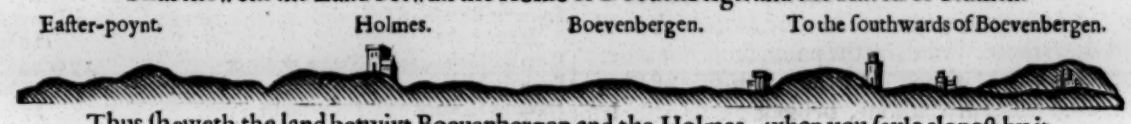
Thus sheweth it selfe the Island Silt, when you sayle alongst by it.



Thus sheweth the Land Zuyder-zyt to the southwards of the Doodenbergh.



Thus sheweth the Land betwixt the Horne or Doodenbergh and the Haven of Numen.



Thus sheweth the land betwixt Boevenbergen and the Holmes, when you sayle alongst by it, 3 leagues from the land.



Thus riseth the Land betwixt the Holmes and the Scaw, when you sayle alongst by it.



Thus sheweth the Land and the Church of Aelst, when you are 2 leagues and an half by east Aelburger-deep.



When you sayle to Lubeck, alongst betwixt the land of Cruys-oort and Holster-land, then it sheweth it selfe on both sides thus.



Thus sheweth the Coast of Meekelenburgh, betwixt Cruys-oort and Doorne-bosh, or the Jelle, when you sayle alongst by it, a league without the land.

The fourth Demonstration,

Where in are Described

The Schager-Rack, as also the Sound from the Paternosters-Kol, And so forth throug the Sound to Falsterbon.

Paternosters.

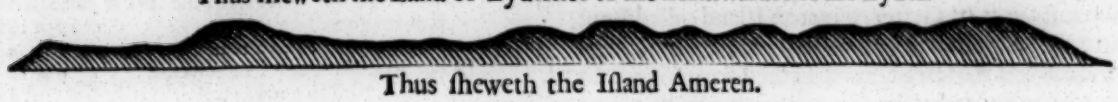
THE Paternosters are a great rane of Rockes, which lye farre off to Seawards from the coast, behinde them, to witt, on the south-side, goeth in within the land a broad Sound, upon the soud-side of it lyeth a great hig round Rock or hil, called Britto. To the soudwards of that sound lyeth the Island of Maelstrand. He that commeth from the Scaw, and desired to sail to Maelstrand, let him go on e. n. e. and then he shall get sigt of the foresayd hill Britto, which he shall set e. n. e. from him, and sayle so in rigt with it, untill that he commeth by the Paternosters, he must leave on the larboard side, and sayl alongst by them e. n. e. and east and by north, and then he shall runne in sight of the Island Maelstrand, upon which standeth a great stony Beacon or Warlock,

From Ruſnes to Caſſeur ſ. ſ. e.	9 or 10 leagues
From Spiro to Langeland ſouth and ſouth and by eaſt	4 leagues
From the north-end of Langeland to the ſouth-end, ſouth	8 leagues
From the ſouth-end of Langeland, to the Iſland Arr, the courſe is w. n. w.	4 leagues
From the Iſland Arr or Koping, to the Roen, w. and n.	5 leagues
From the Roen, to the little Iſland Areu, w. n. w.	3 leagues
From Areu to Apenrade, ſouth and by weſt	5 leagues
From the River of Apenrade to the Strait of Sonderburge	3 leagues
From Sonderburgh to the Sley, ſ. e. and by eaſt	4 leagues
From the ſouth-end of Langeland to Femeren, ſ. e. and by eaſt	8 leagues
From the Pools-riffe, lying on the Iſland Aelſt to Femeren, the courſe is e. ſ. e.	13 or 14 leagues
From the Slye to the Kiel ſ. e.	4 leagues
From Kiel to Femeren, the courſe is eaſt & by north	8 leagues
From Femeren to the Trawe of Lubeck ſ. ſ. w.	9 or 10 leagues
From the Trawe of Lubeck to Wiſmer-deepe, the cours is firſt n. e. and by n. and then e. n. e. in all	9 leagues
From Roſtick to Robbenes, the courſe is n. e.	4 leagues
From Robbeneſſe to Doornboſch n. e. and by eaſt	7 leagues
From Femeren to Wiſmer-deep, ſ. ſ. e.	7 leagues
From Femeren to Roſtick, e. ſ. e.	8 or 9 leagues
From Femeren to Geſter-riſſe, eaſt & by north	9 or 10 leagues
From the Trave of Lubeck to Geſter-riffe n. e.	19 leagues
From Wiſmer-deep to Geſter-riffe n. n. e.	12 or 13 leagues
From Roſtick to Geſter-riffe, the courſe is north	7 or 8 leagues
From Geſter-riffe to Doornboſch, the courſe is eaſt	9 leagues
From Geſter to Meun n. e.	7 leagues.

How theſe Lands doe ſhew them ſelves at Sea.



Thus ſheweth the Land of Eyderſtee to the northwardes of the Eyder.



Thus ſheweth the Iſland Ameren.



Thus ſheweth it ſelfe the Iſland Silt, when you ſayle alongſt by it.



Thus ſheweth the Land Zuyder-zyt to the ſouthwards of the Doodenbergh.



Thus ſheweth the Land betwixt the Horne or Doodenbergh and the Haven of Numen.



Thus ſheweth the land betwixt Boevenbergen and the Holmes, when you ſayle alongſt by it, 3 leagues from the land.



Thus riſeth the Land betwixt the Holmes and the Scaw, when you ſayle alongſt by it.



Thus ſheweth the Land and the Church of Aelſt, when you are 2 leagues and an half by eaſt Aelburger-deep.



When you ſayle to Lubeck, alongſt betwixt the land of Cruys-oort and Holſter-land, then it ſheweth it ſelfe on both ſides thus.



Thus ſheweth the Coaſt of Meekelenburgh, betwixt Cruys-oort and Doorne-boſh, or the Jelle, when you ſayle alongſt by it, a league without the land.

The fourth Demonſtration,

Where in are Deſcribed

The Schager-Rack, as alſo the Sound from the Paternoſters-Kol, And ſo forth throug the Sound to Falſterbon.

Paternoſters.

THE Paternoſters are a great rane of Rockes, which lye farre off to Seawards from the coaſt, behinde them, to witt, on the ſouth-ſide, goeth in within the land a broad Sound, upon the ſoud-ſide of it lyeth a great hig round Rock or hil, called Britto. To the ſoudwards of that ſound lyeth the Iſland of Maelſtrand. He that commeth from the Scaw, and deſired to ſail to Maelſtrand, let him go on e. n. e. and then he ſhall get ſigt of the foreſayd hill Britto, which he ſhall ſet e. n. e. from him, and ſayle ſo in rigt with it, untill that he commeth by the Paternoſters, he muſt leave on the larboard ſide, and ſayl alongſt by them e. n. e. and eaſt and by north, and then he ſhall runne in ſight of the Iſland Maelſtrand, upon which ſtandeth a great ſtony Beacon or Warlock,

Pascaarte van

SCHAGER-RACK,

vande Pater-nosters als mede Maesterlant tot aen Kol, oock hoe dese landen van Schagen gelegen zyn.

't Amsterdam.

By Iacob Theunisz. op't water inde Lootsman.

Duytsche mylen

Spaensche mylen

Engelsche Fransoysen

SCHAGERRACK

HALLAND

Helste

Halmstad

Torko

Swede

Laholm

Tuylo

Valckenborg

Waersbergen

Buyhuys

Slot

Marstrandt

't Landt van oosten

't Noord-

SVE

Gottenborg

Out Gottenborg

Bahnys

Elsborch

Monsterpont

Comstock

Reespont

Windsor fl.

Kongel

DE

N

Calfpont

Maesterlant

Pater nosters

't gat van Malespont

't gat van Bahnys

't gat van Wimmo

't gat van Milus

't zuyder gat van Maesterlant

't noorder gat van Maesterlant

't gat van Waersbergen

Nyns

Rif van Anout

Anout

Trundel

Lesou

Elsenborgh

De Sont

Swynboeder

Laesoe

Zeeburg

Scheyen

Hugersly

Frauwsand

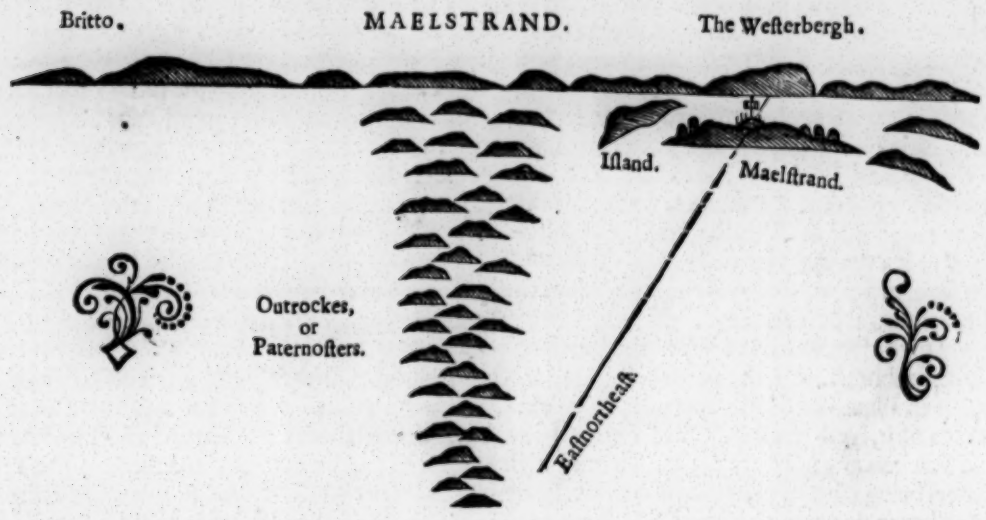
IVTLAND

De SONDT, met alle zyn gelegentheyt mit groot.

SCHONEN

ZEELAND

Engelholm
Katterop
Swedera
Kol
Elsenborch
Sond
Ween
Helsingoer
Kopmanhaven
Malmoyen
Draeckenborch
Landskroon
Noortvliet
Zuytvliet
Draker
Colpenhaven
Kurck
Stoden
Roskild
Nicopen
Southolm
Amak Draker
Reef sol
Coipenhave
Het Bosch
Duytsche mylen



lock, where ſometimus ſtandeth a maſt with a barrel upon it, and ſometimes alſo there ſtandeth none. You may run in on both ſides the Iſland, either about to the north-wards or to the ſouthwards of it, accordingh as ſhal be beſt fitting for the wind: If the winde be at weſt or ſ. w. then you may beſt run in a the norther channell, or if the winde be at ſouth or ſ. e. then it is beſt to runne at the ſouther channell. The norther channell lyeth in by the ſouth-ſide moſt eaſt and by ſouth and e. ſ. e. but the ſouther channell eaſt and eaſt and by north. When you come within the Iſland, you may ſaile about by it, untill you come before the Towne, which you ſhall ſee then lying before you. Men doe anchor there with an anchor to Seawards out a head, and make faſt a cable out a ſtearne on the Kaye, lying ſo with the ſtearn to the ſhoare.

About the middeſt, going in at the ſouther channell, lyeth a rock a bove water, which you may ſail about on both ſides, but within that rock lyeth a ſuncken rock under water, and to the ſouthwards of it alſo a great rock, but a little further out then the other. There lyeth alſo a ſuncken rock under water by the Iſland on the north-ſide of the foreſayd rock, which lyeth a bove water, which men muſt be very carefull to take heed of. There is every where good anchor ground. From thence you may ſayl throug within the rocks to Calf-ſound, Bahouſe and Nilus.

Calf-ſound. Calf-ſound lyet diſtand from Maelſtrand about 4 leagues. For to ſayl in there out of the Sea, you muſt run alonghſt to the ſouthwards of a great rock, where upon ſtandeth a Warder. On the ſouth-ſide of the Havens-mouth there are great rocks, but on the north-ſide all ſmall rocks. When you come Within the rocks about the poynt of the Northland, there you may anchor in 15 of 16 fathom, there is good Anchor ground. From Calf-ſound you may run up to the ſouthwards, through within the Rocks unto the River of Nilus.

Four leagues ſ. ſ. e. from Calf-ſound, lyeth the Iſland Winneu, to the ſouthwards of it goeth in the Channell of Nilus or Gottenbergh, which is a large and broad ſound, lying in n. n. e. in 8, 9 and 10 fathom, you muſt leave Winneu on the larboard-ſide, and runne in betwixt the poynt of the main land, called Kalderhead, and the Iſland little Denmarck, and then in alongſt by the main land on the ſouth-ſide untill paſt Elsburg to Gottenburgh, it is there alle cleane and cleare without any danger that might hurt you. Gottenburgh.

You may alſo ſayle into the northwards of Winneu, then you muſt leave Winneu, and alſo ſome long rocks on the ſtarboard-ſide, and the throug Iſland, or little Denmarck, on the larboard-ſide, and then in alongſt by the poynt of the mayn land, on the ſouth-ſide, as beforeſaid.

Three leagues ſ. ſ. e. from Winneu lye Mael-ſound and Consback: Male-ſound is a roug Iſland, which you may ſayle round about in 7 or 8 fathom, under it is alſo goo road. Two Cables length w. n. w. from Male-ſound, lyeth a ſuncken rock under water, and alſo one even with the water, a bow ſhot from the land, where upon ſtandeth a Warder.

Eaſt northeaſt from Maleſound lyeth the haven of Consback, there ſtand two great Warders, each upon a rock cloſe to the land, betwixt them lyeth in the haven, it is a fayre haven, 10 fathom deep, and good anchor ground, when you come about the low point you ſhall ſee Consback, there ſtand two great Warders, each upon a rok cloſe to the land, betwixt them lyeth in the haven, it is a fayre haven, 10 fathom deep, and good anchor ground, when you come about the low point you ſhall ſee Consback lye to the northwards of you. Consback.

From Maleſound ſ. ſ. w. and ſ. w. and by weſt, a great league to Seawards, lyeth the fowle and dangereus rock Nyng or Nyding: The land upon Nyng is about a halfe league long. The riffe on the north-end runnes till about a league on the land n.e. & is a halfe league broad, wholy rif, with ſharpe ſtones. Upon ſome places 8, 7, 5 & 4 foot water, The taile, which ſhootet ſoutherly downe, is narrow, and runnet from the land n.e. about 2 leagues: There upon is 5, 4 and 3 foot water. A league and a half without Nynger-Riffe, n. w. men may ſtay upon 6 and 7 fathom. You may ſaile throug, betwixt Nyding and Maleſound, or the main land, but it is there all ſhoalow water. Upon Nyding is a fire-beacon, where upon they make fire every nigt. Nyding

From Nyding to Watersbergen the courſe is ſoutheaſt



Monſterſound. 5 leagues, betwixt them (three leagues to the ſouthwards of Maleſound) lyeth Monſterſound, that is a river or ſound which runneth up into the land, upon it lye ſome Towns as Vlymenes, Horn and Goſewater. From Monſterſound 3 leagues to the ſouthwardes, lyeth Watersbergen. For to ſayl in there, you muſt run in by the eaſt-lend. At the point of Watersbergen.

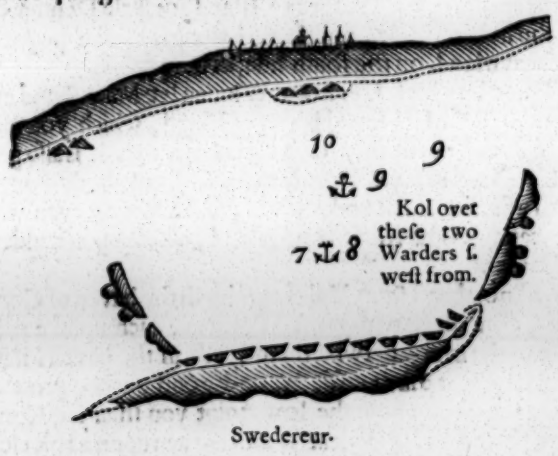
of the Iſland, which lyeth on the northweſt-ſide, before the Haven lyeth a rock under water, & from the poynt where the caſtle ſtandeth upon, lyeth alſo a ſuncken rock, both which you muſt avoyd, & therefore run in amidſt the channell, betwixt the foreſayd Iſland and the mayne land, where the caſtle ſtandeth upon the poynt, and anchor when you come within the poynt right againſt the caſtle in 4 or 5 fat. For to ſayle into Waters-bergen by markes, you muſt bring Old Boey to the north-ſide of the caſtle, and goe on n. n. e. there lyeth a Rock even with the water, which you muſt leave on the ſtarboard-ſide, and anchor right againſt the caſtle in 4 or 5 fathom, as before is ſayd.

Valkenburgh. Three leagues to the ſouthwards of Watersbergen lyeth the River of Valckenburgh. On the north-ſide of the Rivers mouth lyeth an Iſland, called Murupting, and 3 leagues to the ſouthwards of it, lyeth an Iſland, called Tullo, betwixt that Iſland and Valckenburgh, within the land, lyeth a high hill, called Haver, being white to ſee to, as if it where ſandy land: Sea faringhmen doe name it Yong Coll, becauſe of the likeneſſe of height and faſhion, which it hath like Col, and ſometimes it is miſtaken for Coll.

Tullo.

Helmſtee. Three leagues eaſtwards from Tullo lyeth Helmſtee upon a River, but there can goe in no ſhipps, but onely Huyes and Boates.

This River of Helmſtee lyet within a greate inlet about ſ. ſ. w. 4 leagues from Swedereur.



Swedereur.

Two leagues ſouthwards from Helmſtee lyeth the little Towne or little Caſtle, called Laholm, there goeth alſo a little River into the land. A league weſtwards from Laholme lyeth Doſtadt, theſe Places lye in great Bay.

Laholm

Swedereur.

THree leagues to the weſtwards of Boſtat lye the Iland Swedereur, you may run in behind it at bot ſides for to anchor from the northwards, it is there large & broad for to go in. But from the northend of Swedereur ſhotet off a litle ledge of roks, you muſt run alongſt to the northwards of the roks, that lye at the nordend of Swedereur, leaving them on the ſtarboard-ſide & anchor behinde the Iſland, betwixt the great & litle roks in 7 fatum, thwart of the litle white church of Turcko, ſo that the great rock with the two Wardes at the ſoutend be ſ. w. from you, & Col ſtand over the foreſaid rock, there it is beſt lying, & there you are landlockt for all winds. If you wil run out again to the ſoutwards of it, then leave the two Rocks with the Warders on the ſtarboard-ſide, and run boldy cloſe about by them, towards Coll.

He that commet of from Anout, & by reaſon of ſoutherly winds cannot run a weather Coll, let him goe from Col n. e. & by north towards Swedereur, and run cloſe about by the two foreſaid rocks with the Warders, at the ſoutend of Swedereur, until he come behind the Iſland & anchor, as beforeſaid, there it is ſoft grount. A nord wint blowet there open in.

Coll. From Swedereur to Coll, the courſe is ſ. w. and by ſouth betwixt both lyeth a great baye, upon which lyeth that little Towne Engel-holme, where men alſo may ride.

For to ſayle from the Scaw to Coll.

FRom the Riffe of the Scawe to the Iſland Leſou, the courſe is ſ. ſ. e. but the poynt of the Riffe and the Trindel lye due ſ. e. and n. w. 8 leagues aſunder.

The Iſland Leſou is compaſſed round about with foule Dwaelgrounds, Riffs and Sands, that lye off. From the ſoutheaſtend, where the Church ſtands upon, lyeth off ſuch a great riffe or ſhoale from the ſhoare, that about 3 leagues from the land to the ſouthwards of it, it is not deeper then 2 fathom, there under it you may make roade for a ſ. ſ. eaſt winde. Likewiſe from the ſouthweſt-poynt, lyeth off ſuch a great ſhoale, that when the foreſayd flatt Church is eaſt, and e. n. e. from you, you cannot come neare the land within 3 leagues. But the north-end you may come ſo near that you may have roade under it for a ſoutherly and ſ. e. winde, in 3, 4, 5 and 7 fathom, the Church beingh about ſouth from you. Leſou.

From the northeaſt-end lyeth off alſo a Riffe right towards the Trindel, which you may ſound about, which you ſayle through betwixt Leſou and the Trindel, which is the nearer Leſou the ſhoaler, and the near the Trindel on the inner-ſide or weſt-ſide, it is deep 5 and 6 fathom. Riffe off Leſou.

The Trindel is a ſtony Sand-plate, three cornerd, and ſomewhat long of faſhion, it is no more then 4 foot deep, and about two Akers of land great, and lyeth moſt alongſt the fareway, lying from the northeaſt-end of Leſou n. e. or a little more eaſterly about 3 leagues diſtand. On the north-eaſt-ſide of the Trindel lyeth alwayes a great buy, where by you may know it a farre off. Trindel

When the poynt of the Scaw is n. w. and by weſt about a league from you, there it is 17 and 18 fathom deep, but when the poynt lyeth weſt and weſt & by ſouth from you, about a league, there it is 34 or 35 fathom deep.

But he that commeth ſayling about the Scaw, and runnet without the riffe in 10, 11 or 12 fathom, & goeth on from thence ſ. e. or ſ. ſ. e. keepth a long while ſtill the depth 15 and 16 fathom, at leaſt the ſpace of 3 leagues, before he get 20 or 25 fathom. When as that you beginne to get againe ſhoaler water of 10, 8, 7 and 6 fathom, that goeth then through within the Trindel. When as you ſhal meete with the foreſayd depth or the ſhoaling, and ſayle yet further on ſ. ſ. e. then you muſt be very carefull to uſe your lead often, becauſe of the foreſayd ſhoale, which lyeth off from the northeaſt-end of Leſou towards the Trindel, you may run over it (as is ſayd) in 5, 4, and ſo well (in the narrowe) in 3 fathom. When the northeaſt-poynt of Leſou beginneth to come ſ. ſ. w. from you, then you come on againſt the riff or ſhoale, but when the poynt is ſouthweſt from you, then you are over the ſhoaleſt of the riffe. When the weſt-end of Leſou is ſouthweſt, and the Church ſouthweſt and by ſouth from you, then you are about thwart of the buye of the Trindell. Depths about the Scaw.

Four leagues ſouth and by weſt from the Scaw lye the ſmall Helmes, not far from the ſhoare, there are three little Iſlands, the ſouthermoſt the Jutters doe call the Duynen or the Dee, the midlemoſt Holmes & the northermoſt Grasholme, by them lyeth yet another little Iſland. You may ſayle throug between the ſouthermoſt and the middlemoſt, but then you muſt runne neareſt the ſouthermoſt, through betwixt them is four fathom water. The Helmes

Under the Helmes is good road for ſoutheaſt, ſ. ſ. e. and ſoutherley windes. He that will go to anchor under them, comming from the Scawe, muſt runne to the ſtrand in three fathom, and runne ſo alongſt by it, in betweene the ſtrand and the Helmes, untill that he be within the Rockes, there he may anchor, he may alſo well runne through alongſt by the foot ſtrand in 3 fathom. When the Rockes of the Helms are eaſt, & eaſt and by north from you, there is the road in 4 fathom and 4 fathom and a half. The beſt road for to ly under the Helms with ſmall ſhips, is betwixt the ſouthermoſt and middle moſt little Iſland, ſomewhat nearer the main land then the Iſlands: but for great ſhips it is beſt to lye by the Grasholme.

He that will not lye ſo far within the Helmes, may alſo anchor farther out under the high land of Lacklou, ſo that the Helms be ſoutheaſt from him, in 4, 5 or 7 fathom, there it is alſo verie good lying for ſouth and ſ. ſ. eaſt windes, in clean ground of ſmall white and black ſand.

Betwixt the Scawe and the Helmes in the fareway it is deep 18, 16 and 15 fathom. Betwixt the Helmes and the maine land, there is at the ſhoaleſt 3 fathom water. When you

you come from the northwardes throug betwixt them until you come thwart of the ſouth-end of the rockes, there runneth of a little riffe from the Helmes towards the ſtrand, where the greate ſtones lye called Bourſer riffe, but keeping in 3 fathom, you cannot take hurt of that riffe. You may well run out againe by that ſouth-end towards Sea-buy. So that you may ſayl round about the Helmes with ſhippes that are not of very great draughts.

Betwixt the Helmes & Leſou, a good wayes from the Helmes, it is 20 & 25 fathom deep, ſoft ground, but one league from the Helms lye ſome rocks or ſhoals, where of you muſt take heed.

Dwael-grounds To the weſtwards of Leſou lye the Dwaelgrounds, to the northwards of the foreſayd riff, that lyeth of from the ſouthweſt-poynt of Leſou, where the flat Church ſtandeth upon. Which are very uneven of 3, 4, 5 & 6 fathom deep. Of theſe & more other ſhoals & uneven groundes betwixt Leſou and Sea-buy, reade the deſcription of the norther part of the Belt.

Rockes betwixt Leſou and the Helmes About a league n. n. w. from the weſt of Leſou ſ. ſ. e. ſomewhat ſoutherly from the point of the Scaw, & e. ſ. e. from the little Helmes, there lye 2 or 3 little low Iſlands or roks, a litle above water; betwixt theſe Holmkens, & the Helms, it is 20 fathom, but betwixt theſe Holmkens & Leſou 5 fathom deep, to the northwards of them is farre flat, 4 and 5 fathom deepe ſand ground.

If you wil ſayl by night of from the Helmes of from the hig land of Lacklie towards Leſou with a ſ. w. or ſ. ſ. w. winde, then ſayle no nearer becauſe of theſe little Iſlands and ſhoals then ſ. e. and by e. with that courſe you ſhall run over thoſe ſhoals or flats (lying to the northwards from the foreſayd Holmkens) in 6 or 7 fathom, afterwards it will be deeper again, 9, 10 and 12 fathom, go then on e. ſ. e. ſo long untill that the eaſt-end of Leſou be ſ. w. from you. When that eaſt-end beginneth to come ſ. and by w. from you, then you come on againſt that flat, or rif, which ſhooteth of from the n. e. end of Leſou towards the Trindell. It doth ſhoale up from 14, 12 and 10 fathom, unto 8, 6 and 4, and alſo to 3 fathom. If you be ſomewhat near to Leſou, 3 fathom fallet a good whiles, and then it will be again deeper, fur 16 and 15 fathom, and then verie deep. When that foreſayd north-eſt-end of Leſou is ſ. w. from you, then you are cleare of that flat. The Helmes and the Trindel lye eaſt & by ſouth and weſt and by north 7 leagues aſunder.

For to ſayl within the Trindel. When you come from the Scaw with a ſ. w. or w. ſ. w. winde, & that you wil ſayl throug within the Trindel, that is, betwixt the Trindel and Leſou, it is beſt that you goe ſuch a courſe, that you may make your wayes good ſ. e. and by ſ. and then you ſhall run alongſt about the middeſt of the channell, throug betwixt the Trindel, and the foreſayd low rockes, (which lye n. w. of from the north-poynt of Leſou, and ſ. ſ. e. from the point of the Riff of the Scaw.) At the deepeſt in this farewaye, betwixt the Scaw and Leſou, it is 23 and 24 fathom, being paſt over that, you ſhall come againſt a banck of 8, 7, and 6, and alſo into 5 fathom, & then you ſhall be about due weſt, or a little more northerley or ſoutherley from the buye upon the Trindel. Afterwards it wil be again deeper, if you be in the right fareway, to witt, 7, 8, 10, and alſo 12 fathom.

Not for to ſayl within the riff, or the northeaſt poynt of Leſou, it is good to run then ſomewhat more eaſterly, to witt, ſ. e. or ſ. e. and by eaſt, untill you come againſt the foreſayd riff that lyeth of from the n. e. poynt of Leſou, which you may ſound, & ſo runne about by it in 5, 4 and alſo 3 fathom. When the n. e. poynt of Leſou, (that is the poynt with hommocks) is ſ. and by w. from you, then you come againſt the rif, when that poynt is ſ. ſ. weſt from you, then you are right thwart of the rif, but when the poynt is ſ. w. from you, then you ſhall be paſt and cleare of the riff. Being gotten about it towardes Anoute, it will be deepe 30, 35, and alſo 40 fathom.

He that commeth by night about the Trindell, muſt not ſpare his lead, on the outer ſide, that is on the eaſt ſide of the Trindel you may not come nearer by night, then nine or tenne fathom, & then you ſhall not be farre of from it.

When you ſayle cloſe alongſt without the Trindell in cleare weather, and that you ſtande without board, upon the bendes of the ſhippe with your feet by the water, then you can even ſee Leſou. If that then in cleare weather ſtanding ſo without the ſhip, you cannot ſee Leſou, when you are about twart of the Trindel then you runne farre enoug alongſt without the Trindel.

The Trindel & the riffe of Anout lye n. w. & n. e. or as ſome ſay ſ. ſ. e. and n. n. w. 9 or 10 leagues aſunder. Betwixt Anout & Leſou in the right fareway, it is 25 fathom deep, but to the weſtwards of it, to wit, rigt betwixt the Iſlands Anout and Leſou it is ſhoale water, of 7 & 8 fathom, you may ſayle there over theſe flats and ſhoals throug betwixt Anout and Leſou into the Belt. Depths betwixt Anout and Leſou.

Anout is upon the weſt ſide verie foule, and farre of to Seawards from it, lye manie uneven dwaelgrounds of 2, 3 and 4 fathom.

When you ſayle with a ſ. w. or weſterly winde from Leſou in 3 or 4 fathom, you neede not ſayle on more eaſterly then ſ. e. and by eaſt, although it be by night, you ſhall with ſuch winde and courſe run cleare enough off Anout. When as that you reckon to have the length of the riffe, goe then on ſ. ſ. e. and ſouth and by eaſt, for to ſayl a weather of Coll. But by day or when you can ſee about you, not more leewardly then ſ. ſ. e. When you ſayle of from the foreſayd poynte of Leſou to Anout, with a ſ. w. or w. ſ. w. winde, as is before ſayd, and make reckoning to come by night by Anout, then you can not doe better, at to goe 8, 10 or 12 glaſſe (according as the winde ſhall blow freſh) on ſ. ſ. e. untill you come againſt the ſhoaling of Anout, & looke for the daye, that running not to far to leewards of the poynt of the riffe, you may the better gett a weather of Col. Likewiſe, when you come of from Col with a ſ. w. or ſoutherly winde, & runne about a halfe league alongſt without Coll, you neede not alſo ſayle more northerly, then n. w. and by north, that goeth alſo a good waye alongſt to leewards of Anout riffe, & ſo forth towards Leſou. But when you come with a. n. e. wind out of the Sound, or from Col, you muſt runne out cloſe by Coll, if you will ſail a weather of the riffe of Anout.

He that muſt lye by or turne to windwardes betwixt Leſou & Anout, & is bound for the Sound, let him keepe himſelfe on the weſt ſide of the fareway e, when he is a league or two a weather of Leſou, upon thoſe foreſayd flattes, or 4, 6 & 7 fathom, when as that he beginneth to come within a league or two of Anout, there it will be again deeper, but uneven the one caſt at leaſt a fathom more or leſſe then the other, when that you ſhall begin to get that uneven ground of 16, 20 & alſo 13 fathom, then is Anout yet about 3 leagues ſouth from you; comming neare Anout it wil be verie uneven, at one time thirtie, and then ſone againe 15, 17 & alſo 20 fathom.

If you wil ſaile towards Leſou with a ſ. w. winde, comming about the Riffe of Anout from the ſouthwardes, then goe not on more weſterly then n. w. If you goe on more weſterly, eyther w. n. w. or n. w. and by weſt, then you ſhall come ſoon upon the flatte betwixt Anout and Leſou, and ſhall finde firſt tenne, and then by little and little 6, 5, & 4 fathom. When that with the n. w. waye you beginne to gette Leſou in ſight, then it lyeth high, that is, the weſt-end about w. n. w. & the n. e. end, where the riffe lyeth of, about n. n. w. from you. When you come ſo neere to Leſou, that you can ſee the eaſt-end out of the toppe in cleare weather, about n. w. from you, there it is 30 and 34 fathom deep, that laſteth ſo long untill that the foreſayd eaſt poynt be ſ. w. from you, but when that poynt is ſ. ſ. w. from you, then you are rigt twhart or upon the poynte or ſhoaleſt of the Riff, then you ſhall runne over there in 3, 4 & 5 fathom: When that foreſayd poynt commeth to be ſouth and by weſt from you then you are paſt and cleare of the Riffe. Depths by Leſou.

Betwixt Anout and Waesbergen in the farewaye, it is deepe 21, 22 & 23 fathom, betwixt them lyeth alſo a banck of ten, twelve, fourteene and ſixteene fathom. When the northermoſt high hill of Waesbergen is northeaſt from you, then the poynts of Anouts riffes are ſ. w. from you but when that hill is northeaſt and by eaſt from you, and that you beſomewhat nearer Norwaye then the riffe, then you are upon that bank. When you come upon it by nigt, then Depths thwart of Anout.

then goe on south, or south and by east, according at the winde shall bee, & then you shall get againe deeper water. There lyeth yet another banck betwixt the riffe of Anout and Valckenburg, which lyeth alongst unto Haland, which at some places is not deeper then 8 fathom. When the poynt of the Riffe is about south & by east, and the higland of Anout is about south and by west from you 4 leagues, there lyeth also a banck of 14 or 15 fatum.

The riffe of Anout lyeth of from the northeast-poynt of Anout about e. n. e. a league and half into Sea, and at the end lyeth drye above water, which is exceeding steepe & needle to. The north-side (when you come from the nordwardes or the westwardes) you may sound, & runne alongst by it, in 17 or 18 fatum: but comming from the southwards, you cannot (in no wise) come neare it by your lead, for on the south-side close to the Riff, it is 30 and 35 fatum deep.

On the north-side of the riffe, you may anchor at many places in 10, 11, 12 and 13 fatum. When you anchor in 11, 12 or 13 fatum, so that the fire-beakon be s. e. and by south, and the hig land of Anout, which is the west-end, about s. w. and by west from you, then lyeth the outermost-end off the riffe east and by north from you, there is verie good lying for e. s. e. s. e. s. and s. s. w. windes. When you set sayle from thence, and are bound to the Sound, then you may boldly without feare (eyther by nigt or darke weather) sayl alongst by the riffe in 16, 17 or 18 fatum, untill thwart of the end, keeping in such depth you can take no hurt of it. Comming by the end, it is 24 & 25 fatum deepe, but when you come about the poynt, and beginne to goe on s. s. e. then you have presently close to the riffe no ground in 30 and 35 fatum. The riffe of Anout and Col lye one from the other s. e. and n. w. about 10 leagues asunder. In cleare weather you may easily see from belowe both Coll and Anout, when you are betwixt them both. For to sayle from the riffe to the Sound with a w. s. w. winde, you need not sayle nearer with a ship that sayleth wel, then s. s. e. with that course you shall sayl farre enoug a weather of Coll. Comming neare the Coast of Zealand, that you may sound in 14, 12, 10 and 8 fathum deepe.

Road under Anout-riffe.

Depths betwixt Anout-riff and the Sound.

Betwixt Anout & Zealand, in the farewaye it is 18 & 20 fatum deep. Betwixt Anout and Zealand 15 a 16 fatum but in the farewaye betwixt Anout and Coll, it is deep 20, 21, 22 and 23 fatum. To the southwards of the westwardes of it, it is shoaler, to wit 19, 18 and also well 14, 13 & 12 fatum, according as you come to the westwards but towardes Norwaye it is deeper, to wit 24, 25, 28 and also 30 fatum, whereby you may perceive whether you be neareſt the Norway-side to the eastwart of the fareway or to the westwart.

Divers bancks.

About n. w. from Coll 4 leagues, & s. e. & by east from Anout, there lyeth a banck of 9, 10 and 12 fatum.

About east & by south from Anout, so far that you cannot well see it from beneath, but may see it out of the top & n.w. from Coll, there lyeth also a banck of 16 fatum, grosse sandy ground, as if it where ground of the Riffe.

South and by east about 8 leagues from the south off Anouts-riffe, s. e. & by south from the south-end of Anout, and west and by north from Coll about 5 leagues, lye the Lowse-groundes, upon which is no more then 8 foot water. He that commeth of from Anout-riffe, being bound for the Sound, and goeth not more southerly then s. s. e. shall not sayle within these grounds, but with a south and by east course he should fall with them. He that commeth out of the Sound, being bound towards Anout, should (with a w. n. w. course of from the Sound) also sayle within the same, therefore he that is bound with a bare winde from Anout to the Sound, or from the Sound to Anout, must be carefull thereof.

Lowse-ground.

Haselin.

The Island Haselin lyeth from Anouts-riffe south 11 leagues distant, and from Coll s. w. & by west 8 leagues, which is on the north-side, or outer-side very full of riffes and shoales, but on the south-side or inner-side towards Zealand it is indifferent clean, so that you may well have roade there. From the east-end of Haselin lyeth of a Riffe n. n.e, and n. e. and by north, towardes Norwaye 3 leagues into Sea, untill within a league near to the Lowse-grounds: He that must turne to windewardes, with southerly or northerly windes, and runneth somewhat far over westwarder into the bay, must be very carefull, and take heed there of, because it is there about very uneven of depths, & uneven grounds, and therefore you cannot well come neare then by your lead; but the Coast of Zealand you may come neare in 6 or 7 fatum by your lead.

Depths in the Scawa reach.

If it should happen that you must lye by, in the Scawe reach in long darke nigts or mistie weather, then observe these directions following: If you be betwixt the Scawe & Lesou, then you may keepe your self well bouldly to the southwards or westwards, but use the lead much: About the Helmes & the Scawe you may come neare the shoare into 10, 12 or 15 fathum, before you need to cast about. If you be by your reckoning thwart of Lesou, you may come neare it in 10 or 15 fathum: But if you be betwixt Lesou and Anout, there you may runne upon the flats in 5, 6, 7, 8 or 10 fathum. If you betwixt Anout, Haselin and Coll, there you may runne to the south shoare in 15 & 16 fathum, but betwixt Haselin and Zealand in 10 or 12 fathum.

It is best in anie wise to keepe you reather to the south shoare, then to the Norwaye-side, but you must be verie carefull of your lead, and use it verie much.

Haselin.

From Coll to the Island Haselin, it is s. w. and by west 8 leagues, you may sayle throug betwixt Haselin and Zealand, untill you come into the Belt: The Coast of Zealand is a fayre strand, but betweene Fishers village and the Castle Cronenburg, lyeth a bancke a little halfe league from the shoare of two fathom, and runneth with a riffe to the shoare, and is 4 fathum water, as also, to the westwards of Haselin, there shooteth of a riffe to Seawards, which you must avoyd.

Roskildifiourt

Isenvoort.

About e. s. e. from Haselin goeth into the Land a great broad Sound, which without at the entrance of it, is a great league broad, there is good anchoring for a n. winde, in 5 or 6 fathum. The Sound divideth it selfe within the land into three parts, the first or the eastermost, called Roskildifiourt, goeth up s. s. e. unto Rockil, the second, called Isenvoort, lyeth into the land south & south & by west at leaſt 5 or 6 leagues, unto Isick by and Holbeck: within it is up leaſt 2 leagues broad, and in the middest lyeth a great Island. The third lyeth to Draecks-holme, also at leaſt 5 leagues s. w. and n. e. like the Coast towards the Belt. The Coast of Zealand, betwixt Haselin and the Sound is a clean Coast, you may sayle alongst by the Land in 6 or 7 fathum, besides the foresayd riff which lyeth betweene Fishers village there is upon it but 4 fathum deep, but come no nearer to it by nigt then 12 or 13 fathum, for at some places it is steep, & shoaleth up suddenly. Where that little New Church standeth, thwart of it, is flat 3 and 4 fathum, & to the westwards of that wood which standet to the westwards of Lapsand, you may come in 4 fathum by the shoare, without taking hurt, but comming neare Lapsand, you must keepe further of from the shoare, in 7 or 8 fathum, or els you should get behinde the poynt of Lappesand.

Lappesand.

Lappesand lyeth about an English mile to the nordwards of Elsenoore, or the Castle of the Sound, lying on the west-side of the sayle way, alongst the coast of Zealand. For to avoyd Lappesand you must be careful of these marks, there standeth a house to the westwards of the Kings mil, to the westwards of the Castle of Cronenburg, keep the Chimney of that house to the westwards of the front of the Kings mil, and then you can take no hurt of Lappesand, then runne alongst by it in 6, 7 or 8 fathum, so long until that the east-end of the Island Ween commeth a little without the castle of the Sound, keepe that so standing, & saile so in 6 or 7 fathum, somewhat close alongst by the Castle, you may plainly see lying throug the water all that can hurt you.

For to anchor behinde Lappesand.

If you will shift roads out of the Sound, and anchor behinde Lappesand, then sayle thwart of the foresaid Kings-house called the Caux or Kings mill, so that it doe stande about s. or s. and by w. or s. and by e. from you, anchor there in 6, 7 or 8 fathom, there is good lying out of the current and sand-ground but if you will anchor in 12, 13 or 14 fathum, there it is soft ground, and there goeth a strong current with southerly or s. e. windes, but you lye there better, in more roome for to saile inwardes againe

if

if it should happen that the winde did suddenly shift out to the n.w. It happened once to one of may acquaintance, that had ankored somewhat to the eastwards of the Kingsmill, in 6 or 7 fathom and the winde did shif in the night to the n.w. when they weighed their anchor the shippe fell towards the lant, & before they could get the ship about before the winde, they did runne in 3 fatum over the poynt of Lappesand.

From Coll to Elsenoore or the Sound, the course is s. e. & s. e. and by south 4 or 5 leagues. About halfe wayes betwixt Coll and Elsenburgh lye the Swyne-boden, which are some foule rocks, and suncken rockes, which lye of to seawards a good wayes from the land, but when you sayle towardes the Sound comming from Coll, then keep the Island Ween hidden behinde the Castle Cronenburg, and then you cannot sayl foul of the foresayd Swyne-boden, when that you are past them, & runne in amidst the channell, for to avoyde Lappesand, or els if you bringht the east end of Ween, then again right without the castle, or keepe in 7 or 8 fathom from the Selands side, you can not take hurt of Lappesand, when you are come within the castle, you may anchor where you please. The shippers doe commonly anchor all alongst by the land, until to the southwards of Elsenoore, there it is 15, 16 fathom deep, but with a southeast winde it is bad lying there.

Swine-boden.

For to avoyd Lappe-sand.

Towards the Island Ween lyeth a banck of 8 or 9 fathom it is better lying there, but it is somewhat far from the land.

When you will sayl out of the Sound towards Coll, & are come to the end of Lappesand, then goe n. w. and by west for to avoyd the Swyne-boden, untill that Coll be n. n. e. from you, then goe boldly n. w. and by north, or n. n. w. according as the wind shall be, for with a n. e. winde, you must runne out n. n. w. very close alongst by Coll, for to sayl a weather of the Riffes of Anout and Lesou.

For to sayl out of the Sound.

For to sayl to Elleboge or Malmuyen, and Lands-Croone.

IF you wil sayl out of the Sound to Elleboge or Malmuyn, goe from Ween southeast and southeast and by south, and then you shall see the steeple or the towne lyingh before you, sayle towards it, in that farewaye, it is most 7 or 8 fathom deepe: when you come within the s. Holmes, it wil be 5 or 6 fathom deep it doth shoale up suddenly, from the 7 fatum to 5 but before the towne it is shoaler water, you may anchor there in 3, 4 or 5 fatum if you will, you may lye also at the Head in 3 fatum, there it is good lyingh, but with a n. w. winde it is a bad roade, for it bloweth there open in.

If you wil runne out againe to the southwards of the south Holmes towards Fasterborne or Steden, you must take heed of the south Holmes, which are foule round abouth. From the north end shooteth off a riffe a great wayes: Upon the east side, at the south end, it lyeth very farre off shoale, there lyeth also the Northvliet, that is a ledge of rocks under water, but you may perceive it through the water, you shall leave it on the south Holmes side, to witt, on the starboard side of you: but the Southvliet, which lyeth thwart of Old Fasterborne, you shall leave on the larboard side, & so runne throug betwixt them, it is in that farewaye at the shoalest 4 fathom deep. When you com of from Malmuyen, and that the steeple of Coppenhaven come to the s. end of the s. Holmes, then you are past the nortvliet. When you sayle thus throug, you must be very carefull to avoyd these foresayd grounds. You may runne out also alongst by the strand of Schonen, & leave bot the nortvliet lying on the starboard side: you may sound that strand in 4 and 5 fathom as also the riffe of Fasterborne.

Northvliet.

Southvliet.

Lands-croone.

He that will sayl into Lands-croone, must know that there lyet a shoale before the havens mouth, and must runne in about to the southwardes of it, there standeth a little church on the north side, by the water side, & a Gentelmans house somewhat farther within the land, bring that Church over the house, and then you are cleare of the shoale, then sayle in rigt with the poynt, and anchor there in three fathom.

To the northwards of old Fasterborne goeth in a deepe, called Hull or Hulwater, it is a deepe haven for ordinarie ships, which goeth in most northeast in 3 or 4 fathom, you may sound it in alongst by the foot strand of old Fasterborn in three fathom, leaving old Fasterborne on the starboard side, it is there large & broad enough.

Hul-water.

How men shall sayle out of the Sound, through the shoales or grounds, and into the Reefshol.

HE that will sayle out of the Sound towardes the shoales or Groundes, let him goe on south & by east, or he may sound alongst by the wood, in 5 or 6 fathom, & then he shall not sayle a misse of the norther buye, for it lyeth in 5 or 6 fatum, on the northend of the Midleground, to the eastwardes of the buye, it is 7 fathom deep, but in the rigt farewaye thwart of this buye it is 9 or 10 fathom deep: the markes of this buye are, when that end of the wood is w.s.w. from you then you are thwart of the norther buy, & there standeth then a flat steeple, a prettie wayes to the southwards of that wood, there commet also 3 hommoks to the n. side of the town, these are all marks of the norther buye.

Norter Buyes.

From the Norther buy to the Middle buye, the course is south and by east. When you come by the Middle buye, then commeth the southermostmill on to the southwardes of the towne of Coppenhaven, and the flat steeple commeth within a handspikes length unto the sharpe steeple, that are the markes of the Middle buye, or second buye in the shoals or grounds, it is here 8 and 9 fathom deepe.

From the Middle buye to the third, and forth to the buye upon Casper Caniell, the course is s. and by e. When the white castle commeth over the sharpe steeple, they are the markes of the fourth buye, or the buye upon the Casper Chaniell, the third lyeth at the s. end of the Middleground, it is not there verie broade, but steepe on both sides, the deepe there abouts is 7 or 8 fathom: If you must turne to windewards there, you must cast about, so soone as it doth begin to shoale, as well on the one side as on the other.

Third Buye. Buye upon Casper Caniel.

The fourth buye lyeth on the north end of Draecker upon the flat, over against it lyeth a rock above water, called the Fisher, e. and by n. from the buye there you may well sound the south holme, for it is there shoale water. Betwixt the third and this fourth buye commeth runningh out a channel from Copenhaven, which men doe call Casper Caniell, or the Kingsdeep.

Fisher.

From the fourth buye or Casper Caniell, to Draker riffe, the course is south & south & by east the land off Draecker you may sound in 3, 4 and 4 fathom and a half.

The Riffe off Draecker lyeth a good wayes without Draker, it lyeth off a halfe league east into sea. The markes of the buye upon Draker-riffe are these. When the steple of Copenhaven commeth to the southwards of Draker to the wood, then you are thwart of the buye. The shoalest water that you shall finde betwixt this buye upon Draecker-riffe, and the foresayd fourth buye, is 5 fathom lesse two foot. Fort to sayl by night throug the shoales or grounds, go from the Island Ween s. and by w. so longh untill that you come thwart off the poynt off the wood in 4 fathom, then keep somewhat off from the shoare, and goe on s. e. & by e. untill that you come in 7 fathom, and then forth s. s. e. untill you be over the Middle-ground, the first or northermost buye, as is beforesayd, lyet in 5 fathom, but you may well goe over to the westwards off it, in 3 or 4 fathom, keepe then somewhat off, untill that you come in 8, 9 or 10 and 11 fathom, and sayl then on south unto Casper Caniell, there it will be by little shoaler, to wit, about 8 fathom. Thwart off Draker it is uneven for to sound, the one cast 5 and the other 4 fathom, but go your course, except you know that you where neerer the one shoare off Draker, the s. holmes, then the other. Without Draker it will be againe 6 & 7 fathom deep. Full s. e. from Draecker, about a good halfe league lyeth a stone, 3 foote under water, and is about two rods length from the greate where Cornelis Jansz Buysman, from the streeck in September 1628. run upon with his shipp.

Riffe of Draker.

For to sayle into Rifsholl or Copenhaven, commingh from the northwards out of the sound; runne along somewhat to the eastwards of the Norther buye, for to avoyd the plate, or Middle-ground, which lyeth to the westwardes of the buyes in the shoals, which upon the n. end is not deeper then 12 foote, & on the south end 8, 9 and at some

places 10 foot deep, all hard stony and rocky ground, kepe the founding of the shoare on the west-side in 2, 3 or 4 fat. so deep as you please, untill you come before Copenhaven, on that side you can take no hurt, it is there broade & wide, and lyeth in south and by west; in the middest betwixt the shoare and the middle ground, it is 5, 6 and 7 fathom deep. If you should turn to windwards there, then come not neerer the Middle-ground then in 4 fatum, but the west-shoare you may run to by your lead as you please.

From the north-end of the Island Draecker runneth off a Riffe to the northwards, upon the point of that Riffe lyet a buye, which men doe call the buye in the Reefsholl, leave that on the larboard side and run in, untill you come before the Towne and anchor there. If you come from the southwards and will sayle unto Reefsholl, then run alongst to the eastwards of the foresaid fourth buy (which men do cal the buye upon Casper Caniell) then luffe up presently about by it, and goe on n. w. in to the Kings-deep, unto the buye in Reefsholl, which lye one from the other due n. w. and s. e. you shal then also see rigt out a head, in the n.w. within the land a flat steeple right over a great house or Hospital, that standeth close upon the Sea-side, kepe them so one in the other, and sayle rigt in with them, and so you shall run in rigt amidst the channell, it is there in the fareway 5, 6, 7 and 8 fathom deep. This Kings-deepe is somewhat uneven of ground, therefore be carefull in using of the lead, and come not to neere the north-side; that is the Middle-ground, which is very foule & rocky: from the south shoare (about halfe wayes betwixt the two foresayd buyes) it lyeth off somewhat shoale, of that you shall have at one cast 5 or 6 and the other but 3 fathom.

Buye in the Reefsholl.

When you come by the buye in the Reefsholl, which lyeth upon the point of the norther Riffe of Draecker, leave that on the larboard side, and runne on south about by it, unto Copenhaven. The marckes of this buye are these: tere lyeth a round hommock or great rock about half a league within the land, when that is right east from you, then it commeth rigt with a flat steeple which stands about a league within the land, then you are even thwart of the buye, or poynt of the foresayd riffe. These marks will serve at timus when the buy lyeth not there. A little to the northwards of that buy lye the great ships which tarry for wind in 5 or 6 fathom, there is good anchor ground.

Markes of the buy in the Reefsholl.

Kuyck. From the buye upon Draker-riff unto Kuyck, the course is southwest 5 great leagus, but unto the riffe of Fasterborn, or Steden, it is south and south & by west 5 leagues, in the fareway betwixt Draecker and Fasterborn it is 6, 7, and 8 fathom deep, but between Fasterborn and Steden, 10, or 12 and 13 fathom, but by Steden deepest.

Road under Steden. Under Steden you may anchor as well to the southwards of it, for northerly, as to the northwards for southerly windes. If you wil anchor for northerly winds, then run in betwixt Steden and Meun, a good wayes into the bay, so that the steep poynt of Steden lye about n.n. east from you, anchor there in 8 or 9 fathom, and you shall lye landlockt for north and northwest winds; But if you will anchor for south or southwest winds, then anchor to the northwardes of Steden, so that the southeast poynt be south & by east, or s. s. e. and the n. w. poynt n. w. or w.n.w. from you, there it is good lying in 7 fathom, the ground is there smal white & black sand. If you wil set sayle from thence to the shoales or grounds, then goe not more northerly then northeast so long untill that you come by the riffe of Draker, then run about by it in 5 fathom.

To the northwards of Steden the coast of Zealand goeth in with a great bay into Kuyk, it is there all to the west wards shoale water in 5, 6 and 7 fathom, and good anchor ground, so that you may anchor every were there abouts.

The riffe of Fasterborne lyeth off s. w. to Seawards a league and a halfe. It is a fowle stony and rocky riffe upon the end of it lyeth a buye in 4 fathom. You may run about by it upon your lead in 5 fathom with small ships of little draugts. Men doe hold for a marck off this riffe that when the steeple of Fasterborn and the castle come one in the other, that then they are thwart off the point of the riffe. He that commeth from the northwards & will sayl about Fasterborne with a northerly or n.e. wind, and that he will come somewhat neere about the riffe, & commeth in 5 or 6 fathom, he must be very quick in using the lead. When old Fasterborne Church commeth halfe wayes to the Castle and the Church of Falsterborne, then beginneth to come the worst & shoalest of the riff, that lasteth untill that Old Falsterborn Church commeth to the eastwards of the house of Falsterborne, before that you are not past the riffe. If you should luffe up sooner about by it, you should run in great danger with a ship of great draugt, you shall have (commingh against the riffe) the one cast 4 or 5, and then presently 3 fathom upon it, all hard stony ground. Therefore it is best with a ship that draweth 12 or 14 foot, to come no neere this riffe then in 6 or 7 fathom.

Markes of the Riffe of Fasterborne.

If (when you come from the eastwards) you will sayle about Falsterborne, and come alongst the shoare with a n. e. wind in 6 or 7 fathom, & Falsterborne is about n. or n. n. e. from you, then it shoaler up very fast in 2 fathom or 2 fathom & a halfe. Therefore keepe you further of from the shoare in 10 or 12 fathom, so longh untill that the Castle be n. e. or n. e. and by north from you, or that old Falsterborne Church come halfe way to the castle of Falsterborn and Falsterborn Church, then you cannot sayle upon the riff from the eastwards, but runningh about by it in 5 fatum, then you must be very carefull in usingh your lead. But if you will come neere the riff in 4 or 5 fathom, when old Falsterborn Church commeth to the eastend of Falsterborn, you shall run in great danger for to come on ground. When you come within the Riffe, you may run alongst by the coast of Schoonen in 4 fathom without takingh hurt.

He that commeth out of the Sound, & is bound to the southwards of Meun, may come so near Meun as he will, & lose up to the westwards by the poynt & anchor where he please, in 5 or 6 fathom. On the north side of Meun you may also anchor in 6 fathom, behinde a little riffe that shoteth of from the north poynt, for an east, s. s. w. and west wind it is there all over flatt, and good ground.

From Meun to Steden, the course is n. w. & by north 4 leagues, betwixt them both goeth in the Wolf-sound, or Wolve-gat, that runneth past Werdenborgh and Nestveld through the Goversound out into the Belt.

Meun and Falsterborne lye north and by east, & south and by west 5 leagues asunder.

Of the Tydes & Courses of the Streames.

In the Scawe reach, betwixt Maelstrand and Waersbergen the streame goeth most still with the winde and it rippleth there sometimes in some places, as if there where shoals, this you may finde in calme weather, if you let a lead sinke to the ground.

By the Scawe the Streame commeth most commonly falling out at the Belt towards the land of northeast, especially when the winde hath blown a while out of the east or northeast, & runneth alongst by the Norwaye to the northwardes.

Men commingh of from Anour, that will sayle by nigt with a westerly winde, towardes to the Scawe, or comming from the westwards about the Sound, migt soon be carried with this current under Norway, a good while before they should thinke or feare of it. Of this current read further in the first Booke.

In this fareway betwixt the Scawe and the Sound, & then from the Sound untill about Falsterborne, it is exceedingh necessarie that a Pilot (or he to whom the charge is committed) be very carefull in looking out, and be very vigilant, that he may avoide the multitude of daungers, of shoales and riffes lying there: The skillest and best experienced of all hath there enough to doe.

Through the Sound and the shoales or grounds, the streame runneth commonly with the winde, but the most part of the time to the northwards before the comming of a hard east winde; or when it hat blowne out of the east, then the streame runneth still out the northwards.

Courses and Distances.

From the west-end of the Paternosters to the Maelstrand, the course is east northeast	2 leagues
From Maelstrand to Winneu southeast	5 leagues
From Winneu to Maelsound south southeast	3 leagues
From Maelsound to Waersbergen south southeast	5 leagues
From Waersbergen to Tuylo southeast	5 leagues
From Tuylo to Laholme southeast and by east	5 leagues
From Laholme to the poynt of Turko behinde Swedereur, the course is west southwest	3 leagues
From Turko to Engelholme southeast	4 leagues
From Engelholme to Col west	6 great leagues
From Maelstrand to Nyding south southeast	8 or 9 leagues.

From

Custen van

NOORWEGEN,

Van der Neus. tot aen de Pater nosters: oock hoe de selvige Landen van Iutlant gelegen syn.

't Amsterdam.

By Iacob Theunisz. op't water inde Lootsman.

Drommels

Bergh Noordoorden de Drommels

Omgekeerde Boot

Hoogt lant van Spangie

Maerdou

Der Neus

Vlecker

Reper wyck

Wolfsond

Olde Schilsond

Kerckesond

Hamer sonde

Ylant van Olde Schilsond

Ylant van Wolfsond

Ylant van Vlecker

Ylant van Hamer sonde

Ylant van Maerdou

Ylant van Kerckesond

Rebbeckenuyt

Vogelsants

N O O R W

Duytsche mylen 15 in een graet

Spaensche mylen 17½ in een graet

Eng:en Fra. mylen 20 in een graet

Anloo

De Boden

Stuthil

Kalbrot

Oostkant

Schagen

Pater nosters

Aker sandt

Ettrum

Harmenshooft

Harmensond

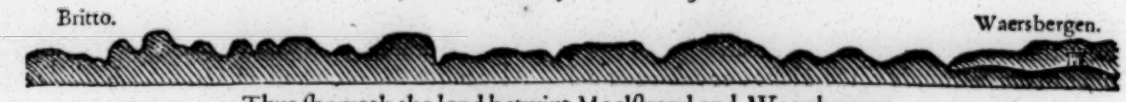
Kersond

8

From Maelsound to Nyding the course is s.w. and s.w. and by west, a league and a halfe.
From Nyding to Waersbergen s. e. about 5 leagues
From Waersbergen to Coll south and by east 12 leagues
From the south-end of Swedero to Coll s. w. 4 leagues
From the Riffe of the Scaw to Maelstrand e. n. e. 13 leagues
From the Riff of the Scaw to Nyding s. e. and by south 13 leagues
From the Riffe of the Scawe to Waersbergen e. s. e. 20 leagues
From the Riffe of the Scawe to Col alongst without the Trindel south 30 l.
From the Riffe of the Scawe to Lesou s. s. e. 8 leagues
From the Riffe of the Scaw to the Trindel due s. e. 8 leagues
From the Trindel to Anout-Riffe s. e. or as some will sayle somewhat more southerly 10 leagues
From Anouts-Riff to Coll it is right s. e. 10 leagues
From Anouts-Riffe to Haselin south 11 leagues
From Coll to Haselin s. w. and by west 8 leagues

From Coll to Elseneur the course is s. e. and s. e. and by south 5 or 6 leag.
From Lapsand to Ween s. s. e. 3 leagues
From Elseneur to the norther buye in the shoales or grounds southeast and by east 6 leagues
From Elseneur to Lanscroone e. s. e. 4 leagues
From Ween to Malmuyen s. e. and s. e. and by south 6 leagues
From Malmuyen to Reefsholme west 5 leagues
From Malmuyen to Steeden s. s. w. and s. w. and by south 10 leagues
From the buy upon Draker-Riff to Kuyck s. w. 5 great leagues
From the buye upon Draker-Riff to Steden, the course is south and by west 5 great leagues
From the Buye upon Draker-Riff to the Buye upon Falsterbornes-Riffe, the course is south 5 leagues
From Meun to Steden n. w. and by north 4 leagues
From Meun to Falsterborne north and by east 5 leagues
From Meun to the Buy upon Falsterborn-Riffe north 4 or 5 leagues.

How these Lands doe shew them selves at Sea.



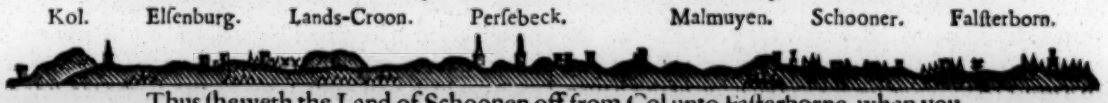
Thus sheweth the land betwixt Maelstrand and Waersbergen.


Thus sheweth the land of Waersbergen, when you saile alongst by it, from Anout into the sound.


Thus sheweth Anout, when you sayle off from Lesou.

Thus sheweth Lesou when you sayle from the Scawe towards it.


Thus sheweth Zealand, when you come from Anout, and will sayle toward the Sound.



Thus sheweth the Land of Schoonen off from Col unto Falsterborne, when you sayle throug the shoales or grounds.

The fifth Demonstration,

In which are shewed

The Coasts of Norway from the Paternosters to the Naze.

Paternosters. THe westend of the Rockes (which men do cal the Paternosters) & Harmans-head, lye n.w. & by w. somewat northerly, & s. and by e. somewhat southerly 5 leagues asunder, to the southwardes of them men do sayle into Maelstrand. Upon the Coast betwixt Farder and Maelstrand, is allmost every where good anchor ground in 35 and 40 fathom.

From Harmans-head to Souterwixholme, the course is south and by east, six leagues. Betwixt them lyeth Boechschaer, but two leagues to the southwards of Harmanssound lyeth Kerckssound, which is a great river, which lyeth in far within the Land.

Northerwixholm. Northerwicksholm and Southerwicksholm, two great Islands, in a great sound, which lyeth far & deep within the land upon it (far within the land) lye many little Townes, as Oldburg, Oldwat, Alleroers & Dragens, from thence commeth much fat ware. Southerwixholm and the Island Akersound, lye n. w. and by west, and s. e. and by east six leagues asunder, and to Ottrom n. w. five leagues.

Southerwixholm.

The Island Akersound men may sayl round about it, to the northwards of it lyeth a great Bay or Sound, lying in farre within the Land, called Ottrom.

Ottrom

Akersound. From the Island of Akersound, to the Sisters, w. & by n. 4 leagues, betwixt them lyeth the Graswycke, within the Sisters, lying from Farder e.n.e. about 7 leagues. When you will saile in there, you must leave the sharp point on the larboard side, within lyeth a round Rock, which you may sayl about on both sides, thwart of it is good anchor ground. North from this Rock lyeth a great Bay, fit for ships to lye in, that tarrie for a winde, within lyeth also a round Rock. Men doe run in alongst by the w. land, which lyeth in first n. & about the Island n.n.e. they leave the Island on starboard side, & run n.n.w. by the w. land. To the eastwards of Graswycke, also betwixt the Sisters and Akersound lyeth Shiphill, that is a Haven where men lade Spars and fat wares.

Grasswycke.

From the Sisters unto Bast, the course is n. w. and by w. 5 leagues. Behind the Sisters to the southwards of the poynt of Roge, lyeth the haven of Elffang 5 leagues. When you come of from Farder, you goe must distant from the Island Farder n. e. and by east 5 leagues. When you come of from Farder, you must run throug within the Rocks, which lye within the Sisters, untill you come against the land, there you shall find a great gray Rock, which you must leave on the larboard side, and the small Rocks that lye there within on the starboard side, and then alongst about by the west-land and then the haven opens it self, which is narrouw, and within flat and soft ground. The Sisters.

When you sayle from Farder or Bast unto Soen-water, you shall meet with a red poynt, betwixt the Soen-water and the Copperwycke. He that is bound into Soen-water must run alongst to the eastwards of it, but he that is bound into Copperwycke must goe up alongst to the westwards of it & leave it on the starboard side. When that you come within the Lams, you shall espie a little Church upon the west-land, there is the lade place of the Copperwycke you may sail up from thence to Brakenes. On the north or east-side lyeth Holmsound, from Farder to the poynt of Roge the course is n. n. e. 5 leagues. At the east-end of Roge you may anchor, there is a playn strand, you may run throug betwixt the Roge and the Calf, but anchor under Fletto, then you must run throug within the two small Rocks. Copperwycke. Roge

From the Island Farder to the Soen-water, north, somewhat easterly, but from Bast n. & by east. The Soen-water lyeth in most north upon it lye many havens & lade places, most on the starboard side as you come in. First there is Mos-sound, a haven that goeth up to the eastwards, & then Soen-water.

Wykestee. there is Wykestee, which is a bigt behind an Island, afterwards Ship-hil, a Sand-bay & a very good road, that goeth so up alongst to the northwards into Anslo, & then it runnet about to the southwardes into the Bottom.

Ship-hill.

Farder. From the Island Farder to Laerwyk the course is w.s.w. 4 leagues, betwixt them both lyet the lirle towne Tousbergen in a great Bigt. And from Farder to the Island Bast the course is n. & by w. 5 leagues, betwixt both lyet a fowle poynt. To the soudwards of Bast lyet Markenboet, and the Bigt of Asko, but to the northwards of Bast lyeth Lowsound.

Bast.

Laerwyck. The Laerwyck is a great broad Sound, where ary many Bigts & Lade-places, where men many lye & lade Firretimber. From the east-point lyeth of a great rane of roks a good wayes of s. e. & by east into Sea, & run in almost halfe the Sound, called the Larwykes Swines, where of men must take heed. Within in this Sound it is flat water, and shoale, so that farre within no great ships can lye a float.

A league to the eastwards of the Nesse, or east-point of

Stavange. the Longesound, lyeth Stavange, they are some outrockes, where men may sayle within on both sides, to the eastwards of it lyeth the Sound of Laerwyck.

The Nesse. For to sayle into the Nesse, that is on the nord-side behinde the eastermost point of Longsound (you must run throug betwixt the great rock) where upon the Warder standeth & the land of old Longsound, leaving the foresayd rocks on the starboard-side, & so alongst about that rough Island, until you come into the Nesse, which lyeth behinde a chindle strand, there you shall lye under a chindle of rockes like red sand: There lye also some little rockes thwart of that chindle. This is a good handsome haven, & ligt for to come into, there it is 24 and 25 fathom deep.

The Longsound is one of the fairest havens of al Norway, & lyet n. n. e. from Jofferland distant one great league. Before old Longsound lyeth a hig round rocke where upon standeth a great round Warder, for knowledge of thit haven.

Coninx haven. Coninxhaven that is the soutermost or westermost channel of the Longsound, & goeth in betwixt the westermost roug point and Conings Island, and then men run alongst to the eastwards of the Baers, which lyet of from the foresaid roug point. For to saile in there, you must run in amid channell, and anchor in the Conings-haven in 28 & 30 fathom.

For to sayle throug within Jofferland from Westkiel, the Sound lyeth throug the channell first n. e. & n. e. & by nord and then e. n. e. & afterwards againe n. e. & then you come to a place where the Sound is somewhat broader, there lyet a suncken rock, which you must leave on the starboard-side, & edge to the north shoare. Being past that, you shall come againe in a very narrow sound, which lyeth throug most n.e. and is at some places so narrow, that the yard armes doe almost touch the rockes. Being throug that narrow place, you must goe n. e. & by east & e. n. e. untill you come twart

Road behinde Jofferland. of the Longsound, then you may sayle in there n. n. w. or sayle into the Sea as you will: Behinde Jofferland you may also anchor in 15 or 20 fathom.

The Baers. From the Baers unto the northermost roks or Jofferland, that is the southermost or westermost point of Longsound, is s.s.w. a great league, going s.s.w. from without the Baers, then you shall finde a third part of water to Jofferland or shoale which you see quite under water about 7 foote. Betwixt them both lye two havens. Eastkiel and Abbefoort, men sayl in there to the eastwards of the outrocks of Jofferland. From these foresayd northermost out-roks of Jofferland unto Eastkiel, it is n.w. about a league but to Abbefoort n. n. w. & nord and by west also a league. Men may (comming from the southwards, or from Westkiel) sayle throug

Westkiell. within Jofferland, into Eastkiel, or Abbefoort.

When you come before Westkiell, you may see within the land three hig hills, and also the hig land of Longsound, lying northwards from you, that land is altogether very easy to beknowne, he that seeth it once, and takes regard of it, shall know it very wel another time, when he commeth there abouts.

A league to the eastwards of Sandvoort lyeth the haven

Jofferland. of Westkiell, a little to the eastwards of it lyeth Jofferland. For to sayle into Westkiell, you must leave al the great rocks (which he of from Jofferland on the starboard-side, and all the foresayd little rocks of Sandvoort, and also a white holme where upon a mast standeth on the larboard-side, and run in first n. w. and afterwards n. n. w. and at last north untill you come about the west point, and then you must edge up n. w. to the north-side of the Islands, which lye within the haven, there is a Vosse, or an Overfall of water, there you may anchor in 20 or 25 fathom.

Thwart of Sandvoort lyeth a banck at Sea, which at some places is not deeper then 3 or 4 fathom, & lyeth alongst to the eastwards untill thwart of Westkiell.

A great league to the eastwards of Sandvoort lyeth Longen. For to sayle in there you must leave al the little rocks on the starboard-side, and run so alongst by the land untill you come within the Long-holms which remain on the larboard-side, and then right into the Bight. This is a faire haven, men come into it from the eastwards. Marken of Oxefort and Longen.

When you are before Oxefort and Longen, then the Drommels lye about w. n. w. from you.

Longen. A league to the eastwards of Oxefordt lyeth Longen, before it lyeth a little round Island or rock on the east-side of the haven, upon which standeth a mast with a barrel upon a Warder. For to sayle in there you must run in close by that land where the Warder with the barrell standeth upon, close alongst by the Warder but there standeth a hand on the starboard-side of the Havens-mouth, which poynteth that there lyeth thwart of it a suncken rock under water, there you must edge somewhat of from the shoare. Being within there, you may run to the eastwards againe into Sea, & come out in the Sound of Sandvoort.

About a league to the eastwards of Trom-sound lyeth the haven of Oxefordt, which is a great broad, and large Oxefort. Sound, lying in first without betwixt the rock, north Without in the comming into the westwards of the havens mouth, lyeth a long rock, which you must leave on the larboard-side, & somewhat past that long rock lyeth a suncken roch, which you must leave on the starboard-side and run in still north unto the west-poynt of the land, thwart where of lyeth a suncken rock which you must avoyd, when that you come then within the west-point, you must saile in n.w. and n. w. and by nord and anchor on the north-side of the haven, there it is wide & broad, which many bigts where you anchor every where in 20 and 25 fathom.

About halfe a league to the eastwards of Mardouw standet a litle white Church upon the Sea-side, to the eastwards Tromsound. of it goeth in the Trom-sound, being a faire Sound. Without in the comming in, stand on the east or north-side two Warders upon a hig hill, you must sayle in by them, & thwart of them you may also anchor, and from thence you may saile in further behind the Island Trom, and the land of Maerdow, untill you come into the Sound of Maerdow.

When the Drommels are n. w. and n.w. & by nord from you, then you are rigt thwart of Maerdow. If you run in so out of the Sea, rigt with the Drommels, you shall fall rigt with Maerdow, that is a certain mark to know wheter you be thwart of Maerdow, or to the eastwards of the westwards of it, but when you are close before the land, or before the havens-mouth, you cannot see the Drommels, because they are then hidden of the Cliffe-land. To anchor under the Island there is the shoalest water, but with a n.n.w. winde, it is not so good to come from thence as out of the haven, but with an easterly winde it is better to set sayl from thence and to get into Sea.

The Easter-gat lyeth in w. s. w. there lyeth a suncken rok on the starboard-side, when you saile in, therefore you must run in close by the Island. It is not deeper there in the gat or channell then 3 fathom, but being come within it, you shal it deeper, you may anchor there under the Island in 12 or 13 fathom, or you may run up to the westwards into Sound, as is beforesaid.

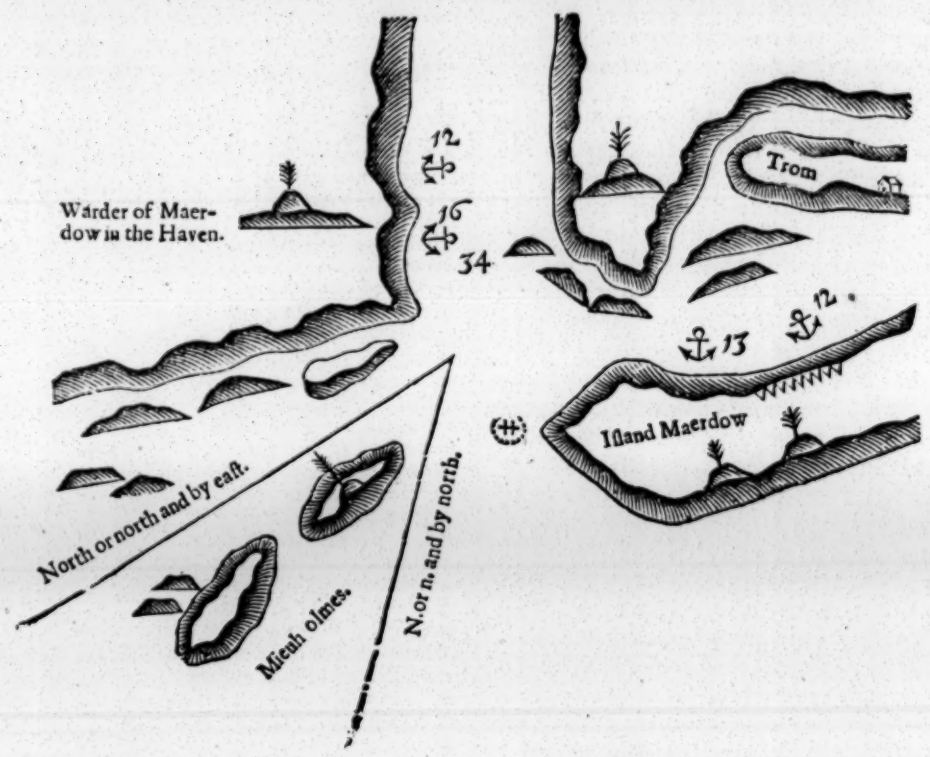
With a bare winde, or otherwise, you may sayle also in, For to sail into Maerdow, throug within the Mew-holmes. to this Wester-gat of Maerdouw, to the westwards of Mieuholmes thus: To the westwards of the southermost Mieuwholme, not farre from it, lye two little rocks, even above water, & a little further of from it two other rockes which are somewhat greater, you must runne in amidst the channell throug betwixt them, leaving the two smallest lying on the starboard-side, and the two great on the larboard-side, that channel lyet throug most n. & n. & by e. Being come to the

the end of the Mic wholms, you may ſayl up either towards the n.e. behinde the Iſland Maerdow, or weſtwards into the Haven, as is beforeſayd. There goet ſometimes a good tyde out of this Haven, and the weſterly windes doe blow commonly out of this channell betwixt the high lands, therefore he that wil come in here with a weſterly winde, muſt be very careful, & keep up his top ſayles, or els he ſhould lightly not be a ble to get the haven, but drive out of it againſt his will.

Thwart of the weſt-end of the Iſland Maerdow lyeth a ſuncken Rock under water, whereof you muſt take heed, when you ſaile in thus to the eaſtwards of the Mic wholmes. When you are come within the foreſayd weſt-poynt or the Iſland Maerdouw, you may runne up towards the northeaſt behind it, & anchor in 12 or 13 fatum, or ſayl up towards the n. n. w. into the Sound, and anchor there on the weſt-ſide in 16, 14 or 12 fathom, according as you ſayle farre in. In the going into the Sound, or haven, it is 34 fathom deep.

The Iſland Maerdouw ſtandeth (upon the top of it) full of trees, & round about it are all bare Rockes. On each ſide of the Iſland goeth in a channell. The weſter-gat or channell goeth into the weſtwardes of the Iſland, and the eaſter-gat to the eaſtwardes of it. For to ſayle into the weſter-gat, you muſt leave the Mewholmes (they are a few Rocks and Iſlands to the weſtwardes of the Iſland of Maerdouwne) on the larboard-ſide, and the Iſland on the ſtarboard-ſide, & run in ſo betwixt them both northweſt & by north but with a ſouthweſt wind, you muſt ſayle in n. w. Upon the northermoſt Mieuwholme ſtandeth a Warder.

The Haven of MAERDOW.



Kerck-ſound. & Heſneſſe. To the eaſtwards of Hamer-ſound, men doe goe into Kerck-ſound, & 10 a halfe leagues more to the eaſtwards lyeth the haven of Heſnes. Upon the land of Heſneſſe ſtande two Warders: thwart of them it is very ſteepe, but towards little Church it is ſhoaler, to witt, about 30 fathom: the Out-rockes thereabouts are all red of colour.

On the weſtſide of the havens-mout lye a ſuncken Rock under water, called the Koenagle, upon the land ſtand 2 litle maſts, when they come one in the other then you are thwart of the Koenagle. The two foreſayd little Maſts, ſtand upon a gray Holme, leave that on the ſtarboard ſide, and goe ſo ſtill inwardes, there it is high land, and the Drommels lye from thence n. n. w. within the land, there you may ſayle throug within the Rocks, untill you come into Maerdow.

Hamer-ſound. To the eaſtwardes of old Hiſound lyeth Hamer-ſound, lying in north northeaſt. On the weſt-ſide of the Havens-mouth lyeth a ſuncken Rock which you muſt avoyd, and ſayle cloſe alongſt the Iſland, which lyeth on the eaſt-ſide of the Havens-mouth, and anchor behinde the Iſland right againſt the Warder, in thirty fathom. The eaſter-gat lyeth to the eaſtwards of that Iſland, in and out northweſt and ſoutheaſt upon the weſt-ſide lyeth a Rock with a Warder.

Old Hil-ſound. To the eaſtwards of Wolf-ſound lyeth old Hilſound, but betwixt them both, at the poynt of the weſt-ſide of old Hill-ſound lyeth the Iſland of Blind-ſound, to the eaſtwards of it lye manye greate Rockes, with 2 or 3 Warders upon them.

For to ſail into Maerdow, throug within the Mewholmes. For to ſaile into the old Hilſound, you muſt runne alongſt to the eaſtwards of Blinſound with the Rocks that lye by it, in by the weſt-land, leaving them on the larboard-ſide, and the foreſayd great or Holmes with the Warders altogether on the ſtarboard-ſide, there are divers faire ſounds, where men may ſaile into and anchor in, without taking hurt. You may edge up to the weſtwards about the poynt, and ſayle throug betwixt the Iſlands, that you can not ſee the Sea.

Wolf-ſound. On the eaſt-ſide of Reperwyck lyeth Wolf-ſound, before it lye two great Iſlands, which ſhew them ſelves in hig gray Rockes, with three or foure Wardes upon them, whereby you may know them.

Wolffound is a narrow haven for to ſayl into, there ſtand 2 Maſtes upon the weſt-land, where you muſt goe in cloſe by, leaving them on the larboard ſide, and ſome litle Rocks on the ſtarboard-ſide, untill that you come within the greate Iſland, where upon the great Warders ſtand, there you may anchor, & lye landlockt for al winds. From thence you may runne forth throug within the Rocks and come aut againe into the Sea, by the old Hilſound, or you may run out alſo at the Eaſter-gat of Wolf-ſound, there gat, upon a round high Rock, there you may ſayle out or it where you will.

Reper-wyck. Three leagues to the eaſtwards of Fleckery lyeth Reperwyk, a broade and Wyde-Sound, lying in north & north & by weſt. For to ſayl in there you muſt run in by the land of Wolf-ſound (lying on the eaſt-ſide of this haven) leaving all the Rocks (and alſo where the maſt of Wolf-ſound doe ſtand upon) on the ſtarboard ſide, and all the Rocks of Ranſound on the larboard-ſide, until that you come to the end, or within in the haven, and then you muſt edge up to the eaſtwards about the poynt, and anchor there, that is a good haven for ſhips that are bound to the weſtwards.

About three leagues eaſt northeaſt from Holy-ſound and 8 leagues to the eaſtwards of the Nazo, lyeth the haven and Iſland Fleckerye, you may ſayle in at both ſides of the Iſland, as well from the weſtwardes, as from the eaſtwards into the haven of Fleckerye. The weſter-gat lyeth in north northeaſt. When you come off from Holyſound then you ſee open into the Sound, you muſt ſayle alonghſt by the Rockes without Holyſound, untill you come within the Iſland Fleckerye, and edge then weſtwards the land, untill

Fleckerye. The Weſter-gat of Fleckerye.

you come within the Dieveholme, where the Gallowes ſtandeth upon, and anchor by the weſt-land, 15, 16 or 20 fathom: You muſt bring out there an anchor a head, and make a cable faſt on the Rock upon the land. You may run from thence to the eaſtwards of the Iſland Fleckerye, out againe at the Eaſter-gat, e. n. e. into Sea, and then you muſt leave the little Iſland within the Warders, which lyeth at the eaſt-end of the Iſland Fleckerye, with all the greate Rockes by it on the ſtarboard-ſide, and all the black Holmes on the larboard-ſide.

The Eaſter-gat of Fleckerye goeth in w.n.w. betwixt the Iſland Fleckerye and the poynt of Ranſound. When you come before it, you may ſee open in the Voſſe. For to ſayle in there, you muſt leave all the black rocks thwart of the poynte of Ronſound on the ſtarboard-ſide, and the graye Rockes with the little Iſland, where the Warders ſtand upon, on the larboard-ſide, when as you come then by the forenamed Dievenholme, you muſt runne weſtwards of it unto the Sand-bay, and anchor there, as is beforeſayd.

When you are thwart of the Eaſter-gat of Fleckerye, then there lyeth rigt thwart from you within the land a hig round hill, which men doe call the Boate turned up ſide downe, which lyeth out above all the lands there abouts, and comming from the weſtwards againſt Fleckerye, there ſhewe alſo three hig double lands, which by little & little ſeeme to go to nothing towards the Drommels.

Holy-ſound. Three leagues eaſtwards of Scheerſont lyeth the Iſland called Holyſound, where upon ſtand two great Warders, you muſt ſayle in weſtwards that Iſland alongſt by Geve, which is great hig blacke cliffe which is the marke to know the land by, you muſt leave them in your ſayling in on your larboard-ſide, till you are within, then you may anchor under the foreſayd Iſland, there abouts runneth a great bay in towards the land where you may ſayle in, & where many ſhips doe lade.

A little to the eaſtwards of Sparrels lyeth a haven called Scarſound, or Weſtryſen, for to ſayle in there, you muſt leave Sparrels to the weſtwards on the larboard-ſide, & all the great Holmes or Rocks to the eaſtwards on the ſtarboard-ſide, & run ſo inwards until you come into the haven.

From the Naze (that is the ſouthermoſt poynt of Norwaye on the Nord-Sea) weſtwards, the coaſt lyet ſomewhat alongſt by the land of Leeſt, w. n. w. but to the eaſtwards of it (alongſt without the rockes, untill paſt the Iſland Fleckerye) e. n. e. about 10 leagues. From thence alongſt n. e. unto the Longſound about 16 leagues. This coaſt al alongſt full of hig ſteepe ſtonye hilles, and without it full of manie rockes verie ſtrange to behold, but it hath manie faire deep Havens, with very good anchor ground, where in great abundance of timber and boards laden. The firſt Haven to the eaſtwards off the Naze, is called the Kloof or the Cowe & Calfe, after two hig hommockes, eaſy to be knowne the one ſomewhat greater then the other, which lye within the haven upon the hig land, & are alſo called by the Dutch Shippers. He that will ſayle into this Haven comming from the weſtwardes, ſhall meete with a great Rock ſomewhat to the eaſtwardes of the Naze, called Melyn, where upon is a Warder, being paſt that he ſhall find another Outrock, where upon ſtandeth alſo a Warder, called Sparrels. Betwixt theſe two Outrockes, he muſt runne into this haven the Kloof. When he commeth againſt Sparrels, there lyeth a ſuncken Rock under water, where of he muſt take heed. Somewhat within Sparrels lyeth another Rok in the farewaye, but above water, which he muſt leave on the larboard-ſide. In ſayling in ſo, the haven doth open it ſelf, by little and little, and ſo ſhall come againſt the Kloof: being come within it he muſt edge up to the weſtwards, about the poynt, and anchor there in a ſand-baye, in 15 or 16 fathom, ſo that the two foreſayd hommocks the Cowe & the Calfe ſtande about n. e. from him.

The Kloof. Cowe and Calfe.

Of the Streames on theſe Coaſts.

Althoug the water on theſe Coaſts of Norway doth Ebbe and flow bey and Bergen as farre as Stad, never the leſſe it keepeth no certaine tyde, in ſometimes of the Jeare and principally in the Springtime there goeth ſug a ſtrong Streame about weſt alongſt Norway, that a ſhip having a ſ. w. ſtorme ſhall not be able to ſtem it can beate ſayle. How nearer you come under the Land of Norway ſo much the ſtronger goeth the Streame falleth out of the Belt, on againſt the Land from the n. e. and turneth ſo alongſt by the Coaſt of Norway towards the North-Sea. Read more largely of this in the deſcription of the Belt.

How theſe Lands doe lye one from the other, and from other Lands.

From the weſt-end of the Paternoſters to Harmans-head north & by weſt ſomewhat northerly	5 leagues
From Harmans-head to Southerwix-holm, north and weſt	6 leagues
From Southerwix-holm to Akerſound ſ. e. and by eaſt	6 leagues
From Akerſound to the Siſters, weſt and by north	4 leagues
From the Siſters to Baſt, n. w. and by weſt	5 leagues
From the Red-point to Baſt, ſ. ſ. w.	3 leagues
From Coperwijck to Baſt ſouth and by eaſt	4 leagues
From Soen-water to Farder, ſouth, ſomewhat weſterly	8 leagues
From Baſt to Farder ſouth and by eaſt	5 leagues
From Monck-Iſland, or Roge, to Farder ſ. ſ. w.	5 leagues
From the Siſters to Farder ſ. w. and by weſt	4 leagues
From Farder to Laerwijck w. ſ. w.	4 leagues
From the Iſland Farder to the Longeſound w. ſ. w.	8 leagues
From the Longeſound to the Jofferland ſ. ſ. w.	1 great league
From Jofferland to Maerdow, ſ. w.	8 leagues
From Jofferland to Fleckory ſ. w.	19 leagues
From Eaſtryſen to Maerdow, ſ. ſ. w.	3 leagues
From Maerdow to Wolffand, or Reperwyck w. ſ. w.	8 leagues
From Maerdow to Blindſoend ſ. w.	6 leagues
From Blindſound to Wolffound ſ. w.	3 leagues
From Wolffound to Fleckory ſ. w. and by weſt and w. ſ. w.	3 leagues
From Reperwijck or Wolffound to the Naze w. ſ. w.	11 leagues
From Fleckory to the Naze w. ſ. w.	8 leagues
From Scharefound to the Naze w. ſ. w.	3 leagues
From the Naze to the Holmes in Jutland ſ. e.	19 or 20 leagues
From the Naze to Boevenbergen ſ. e. and by ſouth	24 leagues
From the Naze to Holyland, the courſe is ſ. & by e. & ſ. ſ. e.	67 or 68 leag.
From the Naze to the Eems, ſouth ſomewhat eaſterly	75 or 76 leagues
From the Naze to Born-riffe ſouth ſomewhat weſterly	83 leagues
From the Naze to the Teſſel or Maers-deep, the courſe is ſouth and by weſt diſtant	93 leagues
From the Naze to Walcheren, ſouth and by weſt	125 or 126 leagues
From the Naze to the Head, or the Strait betwixt Calice & Dover, the courſe is ſ. ſ. w. or ſomewhat more weſterly	143 leagues
From the Naze to the Holmes before Yarmouth ſ. ſ. w. ſomewhat weſterly	104 leagues
From the Naze to Flambroug-head, ſ. w.	100 leagues
From the Naze to Scarboroug ſ. w.	99 leagues
From the Naze to the River of New-caſtle, ſ. w. & by weſt ſomewhat weſterly	104 leagues
From the Naze to Liet in Scotland w. ſ. w. ſomewhat weſterly	103 leagues
From the Naze to Boekeneſſe weſt ſomewhat northerly	88 or 89 leagues
From the Naze to Fayerhil, w. n. w.	93 leagues
From the Naze to Hitland the courſe is northweſt and by weſt about	100 or 101 leagues
From the Kloof or the Cow and Calf to the Scaw, the courſe is eaſt & by ſouth, ſomewhat eaſterly	30 leagues
From Fleckory to the Holmes in Jutland, ſ. e. and by ſouth	19 leagues
From Fleckory to the Scaw, eaſt and by ſouth	25 or 26 leagues
From Reperwijcke to the Scaw, eaſt and by ſouth and e. ſ. e.	24 leagues
From Maerdow to the Holmes, the courſe is ſouth	24 leagues
From Maerdow to the Scaw, ſ. e. and by eaſt	20 or 21 leagues.

How theſe Lands doe ſhew them ſelves at Sea.



Thus ſheweth the Cow & Calfe, being 4 or 5 leagues, north & by eaſt from you.



Thus ſheweth the Cow & Calfe, when you come from the weſtwards, & are thwart of them.



Thus ſheweth the Naze, being 4 or 5 leagues weſt from you.



Thus ſheweth the land to the eaſtwards of Longſound, when you are about 5 leagues off from the land, & ſayle from the weſtwards alongſt by it.

Thus

Ombon

Kars fioerd

Stierner oe

Fundoe

Stafanger

Dieſholm

Boxfioerd

Skils fioerd

Doeſtryck

Lengenes

Cleyne Bock

Sibrich ſteen

Bocchaven

Bock

Wytings oog

Schuute

t Eyer

nes

Vſtus

DE IED

Veeſteen

Klip

Rut

DER

NOO

Duytſche mylen 15 in een graet

Eng. en Fra. mylen 20 in een graet

De Cuſten van

OORWEGEN

chen Der Neus en Schuitenes.

't Amſterdam.

Iacob Theuniſz. op 't water

inde Lootsman.

R W E G E N.

Kol Kalf

Mehrn

Bißchops boeden

Berghsont

't Land van Lofot

Ekisondt

Sagtmadt

Stormach

Tosscman

D E R.

The Naze. The land of Springer.



Thus ſhewet the land of Norway, betwixt the Naze & Fleckory, when you are about 5 leag. off from it.

Fleckery. The Boat. Wolf-ſound. Hamer-ſound.



The land betwixt Fleckory and Maerdow, or the Drommels, ſheweth thus, when you come from the weſtwards, and ſayle alongſt by it.

Drommels. Hill to the northwards of the Drommels. Eaſt Drommels. The land of Weſt-kiel.



Thus ſhew the land betwixt Maerdow & Longſound, when you are about Langen 5 leag. without the lant.

Diſtelbergh. Long. Britto.



Thus ſheweth the land of Northeaſt betwixt Southerwycksholme and Maelſtrand, when you ſayle alongſt by it, being 4 leagues without the land.

The ſixth Demonſtration,

Where in are ſet forth

The Coaſt of Norway, between the Naze and Schnytenes.

ALitle to the weſtwards of the point of the Naze lye two havens, New and Old Silloe or Silleu, ſome doe call theſe one haven (like as alſo men may doe) & diſtinguiſh it into an eaſter & weſter gat or Haven, for men can goe with boat troug within the Rocke from the one into the other, but not with great ſhips.

Silloe. For to ſaile into the Eaſter-gat or New Silloe you muſt take heede of the Biſhops Boeden, which are a few outroks a little to weſtwards of the point of the Naze, right before the middeſt of the Sound, leave them on the larboard ſide, and ſaile in alongſt by the land of the Naze untill you come ſomewhat within the foreſaid Biſhops Boede, and then you ſhall find there alſo a ſuncken rock, which you muſt avoyd, run about to the northwards of it, and edge then up to the weſtwards behinde the Iſland of New Silloe, and anchor there againſt the white Church within the foreſayd Rock.

Old Silloe. The land of Leeſt. For to ſayle into the Weſter-gat or Old Silloe, you muſt run about to the weſtwards of the Out-rocks and Biſhops-Boede, and ſayle right with the ſouth-end of the land of Leeſt; being come by it, run to the eaſtwards alongſt by it, but take heed of ſome Rocks, which lye of from the innermoſt Iſland on the ſtarborad ſide, being the within anchor againſt the Iſland, where you pleaſe.

Hitteroe. From the Naze to the Iſland Hittero or Hittereu, the coaſt lyeth alongſt the land of Leeſt w.n.w. 5 leagues. To the ſouthwards or the weſtwards of that Iſland men doe

Windfoort. Berghſound. ſayle into the haven of Windfoort, which lyeth in n. e. but to the northwards of it men doe run into Berg-ſound, e.n.e. in betwixt the Iſland and the land.

In that Iſland is alſo a good haven, which you muſt ſayle into from the northwards, the havens mouth is not very wide when you are come in within it, you may edge up to the eaſtwards or ſouthwards, and anchor there.

Soggendall. Two leagues to the northwards of Hitteroe lyeth a haven called Soggendall, there lyeth a little Iſland before it, within men may anchor, it is a good road for them, which are bound the ſouthwards. Betwixt them both, not farre without the land, lye two Out-rocks alonghſt the ſhoare, called Fock-ſtones, the one lyeth a little more to the Seawards then the other.

Ekeſound. A league to the northwards of Soggendal lyeth Ekeſound, before it lyeth an Iſland, which you may ſayle into on both ſides of it, the ſouther-gat lyeth in n. e. being come in there, you muſt anchor on the north-ſide of the haven in a bay, there is the beſt road in 8 or 9 fathom, the Norther-

Sirowach. gat lyeth into the eaſtwards, being come in there, you may anchor at divers places. Two leagues to the northwards of Ekeſound lyeth a Haven called Sirowach.

For to ſayle in there, comming from the northwards you muſt run in right with the ſouthermoſt ſand-bay untill you come cloſe by the ſhoare, and then the haven doth open it ſelfe, loof up cloſe alongſt by the north ſhoare, then run up by it to the ſouthwards, and avoyd the weſt-poynt, thwart of it lyeth a ſuncken Rock 12 foot under water, being there within, let your anchor fall in 7 or 8 fathom, and bringh a cable on the weſt ſhoare, then you ſhall lye landlockt for all winds. This is a good haven for thoſe which are bound to the northwards.

To the northwards of Sierowach lyeth the land the Jedder, which lyeth from Sierowach firſt n.w. and by north two great leagues to poynt Walberd or Mids-Jedder and the north 4 leagues, which is altogether a clean whole coaſt without any dangers or havens, except at the very north-end, from which runneth of a little Riffe n. w. into Sea towards the Veetſtone.

Veetſtone. The Veetſtone is a great Rock, lying about two leagues without the land, lying n.n.w. from Mids-Jedder 5 leagues, betwixt them both a great league to the ſouthwards of the Veetſtone lye ſome low blackes, called Rut. When as you ſayle from Mids-Jedder on n. n. w. towards the Veetſtone, then the Veetſtone doth ſhew him ſelfe very round, like a Haycock, and ſayling ſo, you migt ligtly within the foreſaid Rocks of Rut, but beingh a little more to Seawards, the Rut. Veetſtone ſheweth it ſelf a little longer on the weſt-ſide, then you cannot take hurt of the Rocks of Rut.

Whitings-Eye. Sibrichſtone. About 2 leagues n. n. w. from the Veetſtone lyeth an Iſland, where upon ſtandeth a Church called Whitings-eye but n.n. e. from the Veetſtone 4 leagues lyet another Iſland before the Sound of Stavanger called Sybrichſtone.

If you will ſayle into Stavanger, commingh from the ſouthwards, then ſayle through betwixt the Veetſtone and the foreſayd Rocks of Rut, lyingh on the ſtarboard ſide, but you muſt take very good heed of that little ſtone-riffe, which lyeth off from the north-end of the Jedder: ſayle in untill that the Veetſtone doe lye ſ. w. from you, then goe in northeaſt towards the poynt of Tongenes, which is a long point and low land on the ſouth-ſide of the Sound.

Tongenes. When as you ſail now from the Veetſtone towards Tongenes, then you ſhal ſee that Iſland Sibrichſtone before the Sound, which it doth ſhew it ſelf in two parts, leave that on the larboard ſide, and ſayle in by the poynt of Tongenes, but there lyeth a rock of to the northwards from the point, ſayle through betwixt the Rock and the poynt, about eaſt or e. ſ. e. into Doeswycke; when you are within the Caſtle of Doeswycke, there you may anchor. But if you wil ſayl in further before the Town of Stavanger, then leave

Doeswyck. Stavanger.

the

the Dietſholm on the ſtarboard-ſide, and ſayle in ſ. e. and ſ. ſ. e. before the Towne, and anchor there where you pleaſe.

But when as you come from the northwards, and will ſayle to Stavanger, then run throug betwixt the Veetſtone and the Whitings-eye, and then goe on n. e. towards Sybrichſtone, and the poynt of Tongenes, and doe further as had been before taught.

Schuytenes. From the Veetſtone to Schuytenes, the courſe is n.n.w. 5 leagues.

But from Schuytenes to Sybrich-ſtone through betwixt Whitings-eye, the courſe is eaſt 5 leagues.

Outſeers. Foure leagues weſt and weſt and by north to Seawards from Schuytenes lye the Rocks called the Outſeers.

Gaeltje Jans Steerman off Staveren, commingh from Schuytenes and being about 2 or 4 leagues from it, hath caſt upon 18 fathom, and about 18 leagues ſouth and by weſt ſayling, found 38 and 39 fathom, and goying yet 5 leagues further upon the ſame courſe, found 24 and 25 fathom, and yet 9 leagues further ſaylingh ſouth and by weſt, and found 23 fathom water fine ſandy ground, and afterwards 24 and 25 fathum.

Of the Streames on theſe Coaſts.

On the Coaſtes off Norway off from the Naze, untill paſt Bergen unto Stade, the water riſeth and falleth, but keepet no certaine tyde. But from thence towards Dronten, and to the northwards of it, it keepeth tyde accordingh to the Moone, like as in other Places.

How theſe Lands doe lye one from the other, and from the other Lands.

From the Naze to Hitteroe the courſe is w. n. w.	5 and 6 leagues
From Hitteroe to Ekeſound the courſe is n. w.	4 leagues
From Ekeſound to Sierowach the courſe is n. w. and by north	2 leagues
From Sierowach to Mids-Jedder n. w. and by north	2 and a half league
From Mids-Jedder to Rut n. n. w.	4 leagues
From Rut to the Veetſtone north and by weſt	a league and a half
From the Veetſtone to Sybrichſtone n. n. e.	4 leagues
From the Veetſtone to Schuytenes n. n. w.	5 leagues
From Sybrichſtone to Schuytenes through within Whitinghs-eye weſt	5 leagues
From the Naze to Outſeers n. w.	31 leagues.

Heights.

Accordingh to the Judgements of the Mapps, the Corner of the Naze lyeth in	57 degrees 40 minutes
Schuytenes lyeth in	58 degrees 36 minutes.

How theſe Lands doe ſhew them ſelves at Sea.



Thus ſheweth the land of the Jedder, when it is northeaſt 5 leagues from you.



Thus ſheweth the land of the Jedder, when it is e. n. e. 5 or 6 leagues from you.

The ſeventh Demonſtration,

In which are ſet downe

How you may ſayle up into the Liet of Bergen.

BEtwixt Schuyteneſſe & Bock goeth in the Liet of Bergen. Schuyteneſſe is about 4 leagues long, at the ſouth-end lye ſome ſuncken rockes & foule grounds; for to avoyd them comming in out of the Sea, you muſt keep the top of Bock a litle without the point of Schuyteneſſe, & then you ſhal goe clear of them: But if you bring cloſe by or to the point of Schuyteneſſe, & ſaile ſo rigt in for to runne about cloſe by the point of Schuyteneſſe, you ſhall ſurely ſayle upon thoſe foreſaide ſunken Rocks and fowle grounds.

The great Warder From the ſoud-end of Schuyteneſſe, the Liet lyeth in firſt n. & n. & by w. 2 leagues to the great Warder, which is a road ſo called after four great Warders, which ſtand there thwart of it upon the land of Schuytenes, for the knowledge of this road: there lye commonly the ſhips that tarry for a wind, being bound either to the northwards or to the ſouthwards, there it is very good lying in 5, 6, 7 or 8 fathom, as well for northerly as ſoutherly winds, you may alſo anchor to the nordwards of the Warders about a point in 5, 6, 8, 10 & 12 fatum, there you ſhal lye land lokt for ſoutherly winds.

A little to the ſouthwardes of the Warders lyeth a Bay, called the Coperwycke, within it is alſo a good haven for Coperwycke. them which are bound to the caſtwards, and will ſet ſayle with a weſt wind: with a eaſterly or northerly wind, you can not well ſhift roads from thence or come out. At the comming into this Baye lyes a ſuncken Rock, called the Coppernaile. Coppernaile, upon it ſtandeth alwayes a great Pole, where by you may ſee to avoyd it.

Without at the ſouth-point of Schuytenes on the eaſt-ſide is alſo a little Bay or two, where men may anchor.

A little to the northwardes of Bock, on the eaſt-ſide of Bock-haven. the Liet is alſo a Bay, called Bock-haven, where men may come to anchor.

All theſe roads, as alſo the Coperwycke, are good for thoſe which comming from the ſouthwardes, by reaſon of contrary winds can not get to the great Warders.

A little more ſoutherly then the Coperwycke, on the eaſt-ſide of the Liet to the northwards of the Bock, lyeth in north into the land, a Sound, which ſheweth it ſelf (when you come from the ſouthwardes) much broader then the rigt fareway, ſo that thoſe that are not there very well acquainted ſhould not thinck otherwiſe, but that it was the rigt channell, and ſo ſhould ligtly go up a contrary way. Therefore it is neceſſary & needfull to ſayl cloſe alongſt by Schuytenes, and not Coperwycke, then you ſhall be within the poynt of the foreſayd Sound.

About a great halfe leagues by north the great Warder, lyeth Notou, there ſtandeth a little white Church and ſome Notou. houſe, thwart of it in the Bay is alſo good anchoring for northerly winds, and good road for them which are bound to the northwardes. Likewiſe it is good anchoring by north the poynt of Notou, for them which are bound to the ſouthwards. Almoſt at the north-end of Schuyteneſſe, is Sichſtreame. alſo a road, called Sichſtreame, where is alſo good lying.

At the north-end of Schuyteneſſe lyeth a little Iſland, when you ſayle up or downe the Liet, you can ſee throug betwixt them into Sea. At this Iſland is alſo a good road Wybrants-Eye. under a Rocke, or Iſland, called Wybrants-eye, there it is good anchoring for all windes.

Betwixt that foreſayd Iſland and the mayne land, you muſt ſayle throug a narrow ſtrait, which is but a little more then a ſhippes length broad, on the eaſt-ſide where of, which is on the ſide of the mayne land, there lyeth a little Rock, or ſuncken Rock, therefore you muſt ſayle cloſe by the weſt-ſide, that is cloſe alongſt by the Iſland for to avoyd the foreſayde Rock.

From

Noton

Sich-
treame.

Wy-
rams-
Eye.

N O O R

Bergen

Slot

't Lant van Bock op ra

Bock op ra

Craymes

Cobbelist

Lethoornes

Hercknes

Roesteen

Het groote Eylandt

Clein Alsfiord

Groot Alsfiord

Crays fiord

Kubbekeris

Nyeholm

Pietersond

Roenkasp

Roenholm

Stormsondt

Solmus fiord

Pietersfiord

Caert van 't Landt van
BERGEN
Begrijpende van Schuytenes tot aen Bergen.

't Amsterdam,
By Iacob Theunisz. op t'ma: ter inde Lootsman.

W E S T G R O N

Landt van Bommel hooft

Olst Liet

Bremer diepsloot

Liet

Volgerrot

Bommelsant

Lemster haven

Suck

Bommel-haven

Bommelsand

Bommelsond

Maes

Oxtlip

Hoogsloo

Slechte Gat

't Bommel

't Blocx

Schuy

Wester

Duytsche mylen 15 in een graet

Sweensche mylen 17½ in een graet

Engelsen Fra. myle 20 in graet

...carte van 't Landt van

...ERGEN

...nde van Schuytenes tot aen Bergen.

't Amsterdam,

...by Iacob Theunisz. op t'ma: ...ker inde Lootsman.

N O O R

't Lant van Bock op ra

Bock op ra

Stavanger

St. Olofsholm

Cleyn' Alesfiord

Eylandt

Kraabbekere

Nyeholm

Dieps fiord

Romkaap

Rooholm

Stormsondt

Solumer fiord

Lopse fiordt

Lopse fiordt

...olde Lut

Bremer Lieffholm

Lut

...Landt van Bomme...

Suck

W E G E N.

Bock haven

't Liet van Bergen

Copernagel

Copenasch nes

Groot Wilder

Schuit

Slechte

Oxelts

Langhelm

't Bloes

Bommel-haven

Bommel Sant

Klip

Wielers

Duytsche mylen 15 in een graet

Spaensche mylen 17½ in een graet

Engelsche Fra. mylen 20 in graet

From Wybrants-eye over the Bommel to the Blocks, the courſe is n. n. w. but firſt ſomewhat more weſterly, about 2 leagues, betwixt them both it is on the weſt-ſide all broken land, great and little Iſlands and Rockes. About halfe wayes betwixt them both goeth a Channell unto Sea, where men doe ſayle much in & out, and it is cleane, broad and wide. He that will run out there (comming from the northwards) may eaſily eſpye it when he is a halfe league paſt the Blocx. On the weſt-ſide lye two little Iſlands or great Rockes, which ſhew much greater then the other rocks, theſe you muſt leave on the larboard-ſide, and run out by them ſ. ſ. w. into the Sea.

He that will runne in here out of the Sea, he ſhal (when he Commeth to the end of Schuyteneſſe) ſee many little Iſlands or rocks, he muſt ſaile paſt al theſe, until that he get ſigt of thoſe foreſayd two great rocks, and then in by them leavingh them on the ſtarboard-ſide; and ſo he ſhal come ſomewhat to the ſouthwardes of the Blocx or Longholme in to the Liet.

The Blocx. The Blocx are two rockes, lying very neare even with the water, which you muſt leave on the larboard-ſide, in ſailing up, and runne cloſe alongſt by the eaſt ſhoare, throug betwixt the Blocx and Longholm. Longholme lyeth a little above the Blox, within it is a good Haven, where is good lying. A little to the nordwards of it lye two rockes more, thwart of them lyet a ſunken rock, which you muſt avoid. Longholm.

From the Blocx alongſt over the Bommel it is yet two leagues, firſt n. & then n. n. e. all alongſt by the land of Bommel-head, the ſouth-end of this a hig ſteepe point, called Bommel-head, to the ſ.w. of it runneth a channell w.ſ.w. into the Sea, called Bommel ſound. This channell is eaſy to be known, comming in out of the Sea. The land of Bommel-head is about 4 leagues long, and the firſt long Iſland to the nordwardes of Schuyteneſſe it is altogether low plaine land, excep on the ſouth-end, which is ſo ſteep a point, as if it where hewen rigt of with an Axe. About the middſt between both-ends of this Iſland (on the Sea-ſide) lyeth a very hig round hill, called Sick, of faſhion almoſt like a ſugerloafe or a mans hat, and lyeth farre above all that low land, which you may eaſily ſee at the ends of this Iſland, and alſo further, where by it is very eaſy to beknowne. Bommell-ſound. Sick.

For to ſayle into this foreſayd channell out of the Sea, you muſt bring that ſteepe poynt of Bommell head e. n. e. or ſomewhat more northerly from you, & ſaile then towards it. And then you ſhall leave a great many little Iſlands and rockes on the ſtarboard-ſide, and the foreſayd poynt on the larboard-ſide, and cloſe in about by it to the northwards. Bommell-head.

A little about this poynt of Bommel-head, on the inner-ſide lyeth a Haven called Bommel-haven, there lyeth a rock before the mouth of it, and alſe a ſuncken rocke betwixt that rock and the north-poynt of that Haven: He that will go in there, muſt go into the ſouthwards of the rock, in betwixt the ſouth-poynt & the foreſaid rock, leaving the rock on the ſtarboard-ſide of him. So ſoone as men are within the Haven, they muſt let fall their anchor, within it is broade and wide, and men lye there landlokt for al winds.

Munſter haven. At the end of the Bommel lyeth Munſter-haven in the land of Bommel-head, on the weſt-ſide of the Liet, even about the point. This is alſo a good haven for them which are bound to the ſoudwards, & by reaſon of contrary winds cannot get further, there ſtandeth a little white Church, thwart of it men muſt anchor in 10 or 12 fathom.

Beulshaven. From Munſterhaven to Beulſhaven it is nord an Engliſh mile, there is alſo good anchoring for ſoutherly winds, further it north, ſomewhat eaſterly to Volger-roade, before it lyet a litle Iſland, under it or by it, on the one ſide or other men may ankor for al winds. Men may alſo ſayle round about it, & run in & out at both ſides of it, if they will. Volger road.

Bremer holm. From Munſter-haven to Bremer-holme the Liet lyeth north, ſomewhat eaſterly about 2 leagues, there the Liet is devide into two parts, to witt, into the Old and the New Liet: The old Liet goet throug to the eaſtwards of Bremer Holme and the land that lyeth to the northwards of it, but the New-land alongſt to the weſtwards of it.

Old Liet. The Olde Liet is not well to be uſed by them, which are not there very well acquainted, alſo great ſhips that draw 12 or 13 foot, may not goe throug there.

Somewhat more then thwart of the middeſt of Bremer-Holme, in the narrow of the Old Liet, lyet a ſhoale where upon is no more then 13 or 14 foote water. A little to the northwards of it on the eaſt ſhoare lyet a bay called Ingefound, where is good anchoring: there lyeth alſo a Bay on the weſt-ſide, halfe wayes betwixt that foreſaid ſhoale & Bremerholm, where men alſo may anchor.

New Liet. The New-Liet is broad and deepe enoug. Thwart of Bremer-holme, in the fareway, neareſt the weſt-ſide lyeth a ſuncken rock, where of you muſt take heed. For to avoid it, you muſt marke the Iſland before Volger road. If you keep it ſo that you may ſee it without the north-point of Volger-roade, then you cannot come to neare that ſunken Rok: But if you bring that Iſland behind the foreſaid point, ſo that you cannot ſee it, you ſhall without ſaile, ſaile rigt upon it: you muſt obſerve theſe markes as well in ſayling up as in ſailing off.

Ruyge holme. In the middeſt of the New-Liet lyeth Ruige-Holme, there men lye with ſhippes faſt unto two Rings: the one is upon the Iſland, and the other upen the point to the northwards of it, where they bring out Cables to.

Redholm. From the New-Liet to the point of Redholme, it is n.n.e. halfe league, betwixt them both goeth out the Soltmerfioerd w.ſ.w. into Sea which is a faire broad and large channel. On the ſoud-ſide lye ſome ſunken rok, but if you run out amidſt the channel, you can take no hurt of them.

Soltmer fioert. At Sea men doe know this Soltmerfioerd by that foreſaid hig & round hill Sicke, which is very eaſy to be knowne, and lyeth 2 leagues to the ſouthwards of it, about halfe wayes betwixt this Sound & Bommel-ſound. The land on the ſouth-ſide of Soltmerfioerd towards Sick, are ſinal white Rockes, which you muſt leave on the ſtarboard-ſide, and runne in ſo amidſt the channell e. n. e. and then you can take no hurt of thoſe foreſaid ſunken Rockes, lying on the ſouth-ſide of this Channell. There lyeth a ſuncken rocke at Sea before this Sound on the ſouth-ſide, a little off from the north-point of Land of Bommel-head, with hard winds out of the Sea breaketh vere much upon it, but it lyeth at leaſt 5 or 6 fathom under water.

When as you come in there, you have Redholm on the larboard-ſide, and you muſt run n. e. alongſt by it, untill you come about the foreſaid point.

From the point of Redholme to the Narrow it is north, & throug the Narrow n. n. w. & n. & by w. at leaſt a halfe league. In this ſtrait it is ſo narrow, that you can but even turne throug it, on the weſt-ſide of the ſtrait lyet a litle Iland thwart of it is good ankor ground in 13 or 14 fathom.

Reine Knape. From the ſtraite to the Reine Knape, the courſe is n. w. & by north 2 leagues: this a little Iſland without trees, cleane round about, which you may ſaile about on both ſides.

Deepe Sound. Thwart of Reine Knaep on the eaſt ſhoare lyeth Deepe-ſound, a good haven for them which are bound to the ſoudwards, the mouth of it is narrow, and alſo but 3 fathom deepe, but within it is broad & large, & 20 fathom deepe. Alongſt to the weſtwards of the Reine Knaep, it is broadeſt, to the weſtwards lyeth a point, and by it a little Iſland you may ſayle throug betwixt the point & the little Iland. From the Reine Knaep to Bagholme, the courſe is nord & by eaſt a great league: Betwixt them bot lye ſome Iſlands & roks, al which you muſt leave lying on the ſtarboard-ſide, there you may at divers places ſayle throug & within theſe Iſlands and rocks, and at laſt come out againe by Bagholme into the Liet, but it is not to be done but for them that are there extraordinary well acquainted. Men migt ligtly get in amongſt theſe Iſlands and rockes, ſo that they ſhould not know how to come out againe. At the eaſt-ſide of Bagholme men may anchor, but there ſhooteth of a little ledge of rocks from the nord-end, where of they muſt take good heed.

Crabkerck. From Bagholme to Crabkercke it is north about there quarters of a league, this is an indifferent haven for ſouterly windes, but it is a litle, there can lye no more then two or three ſhips.

From Crabbe-kercke to Bock up Ra, it is north, ſomewhat eaſterly a league, betwixt them both runneth out the Croſſe-ſound, or Cruys-voert w.ſ.w. & ſ. w. & by weſt into Sea, which ſound is very eaſy to beknowne at Sea, by three

hils (almoſt like the Drommels on the eaſtſide of Norway, but not ſo high) which lye there abouts whithin the land, which are alſo called by ſome the north Drommels, when they are n. e. or there abouts from you, then you are upon before the Croſſe-ſound. Before the mouth of it lyeth a little Iſland neareſt the ſouth-ſide, from which lye of ſome Rocks to Seawards, the broadeſt and largeſt channell is alongſt to the northwards of it, you may well alſo ſayl through to the eaſtwards of the Iſland betwixt it and the land, but there is narrow, yet cleane and cleare without any dangers. When you are within it, you muſt goe in alongſt eaſt northeaſt and northeaſt and by eaſt, and ſo ſhall come into the Liet againſt Cruyſnes, a little to the ſouthwards of Bock up Ra.

Bock up Ra is a little Iſland which you may ſayle about on both ſides, alongſt to the weſtwards of it is the common fareway, and alſo deepeſt. When as you ſayle about to the eaſtwards of it, and come to the north-end of Bock, there it is very narrow, and there right in the fareway (ſomewhat nearer the eaſt-ſhoare then Bock) lyeth a ſuncken Rock, there ſtandeth alwayes a pole upon it, for to avoyd it, you muſt leave it on the ſtarboard ſide, and run alonghſt to the weſtwards of it. Betwixt this Rock and Bock, it is no deeper then 16 foot. Right to the weſtwards thwart of Bock lyeth another Iſland, under it you may alſo anchor in Bocklieth. To the weſtwards of this Iſland goeth through the Cobbelieth, which men doe ſayle through with bare winds, or when they muſt run through, becauſe it is broader then on either-ſide of Rock up Ra.

Cobbelieth.

Watingh-ſtream.

From Bock to the Wattingh-ſtream it is north a league, there you cannot ſayle amiſſe. If you doe not ſayle againſt the land, for there lye no dangers, except at the weſt-ſhoare lyeth a ſuncken Rock cloſe by the land, where upon remayneth at low water about 10 foot water. Upon the end of Watting-ſtream, the courſe is northweſt about a ſhot of a caſt peece, or a quarter of a league, and then you come thwart of little Alefioerd, which is a haven on the weſt-ſhoare, where is good anchoringh both for north and ſouth wind, under a high round Iſland, where you ſhall lye landlockt. From thence to the Reeſtone it is north about two leagues, betwixt then both on the weſt-ſhoare lyeth great Alefioerd, which is alſo a haven both for northerly and ſoutherly winds, thwart of it the fareway is about two musket ſhot broad. The Reeſtone is a Rocke under water, lyingh by the poynt, where the two high hills ſtand, which men doe call the Lethoorns, theſe are two high ſharp hilles, which men may ſee farre of, as they ſayle up of that Liet. Upon the Reeſtone ſtandeth allwayes a Pole, that thereby men may avoid it. You may alſo ſayl alonghſt to the eaſtwards of it, but to the weſtwardes of it is broadeſt, and the rigt fareway, over againſt it on the weſt-ſhoare lyeth Knorwyck, a haven where men may alſo anchor.

Little Alefioerd.

Great Alefioerd.

Reeſtone.

From the Reeſtone to Werckeneſſe, the courſe is eaſt northeaſt about a quarter of a league, & then you leave the Iſland Aſland lyingh on the larboard ſide to the northwards of you, in it lye alſo two havens where you may alſo goe to anchor, the one called Struys-haven, & the other Schoonhaven. To the weſtwards of Aſland you may ſayle to Jeltefioerd, and run out there about northweſt into Sea.

Werckenes.

Struys-haven.

Schoon haven.

Jelte-fioert.

When you come out of the Sea into Jeltefioerd, then you come into the weſtwards of Aſland againſt the Reeſtone into the Liet.

At the ſouth-poynt of Aſland lyeth Jelteſchaer, a little round Iſland or Rock, where upon ſtandeth a great Iron ringh, when as men come up the Liet and with calmes are in danger to be driven with the current to the northwards along by Aſland, then they bring with the boat a cable faſt on it. Men may wend round about the foreſayd Rock without any danger.

Jelte-ſchaer.

From Werckeneſſe to Horneſſe, it is eaſt a little diſtance: when you come by it, you may ſee the Towne of Bergen lye before you, you muſt anchor before it in the Wage, in 11, 12 or 13 fathom.

Horneſſe.

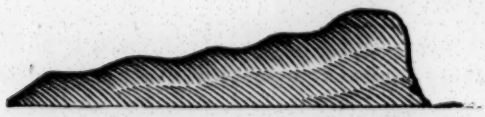
To the northwards of Aſland lyeth the Iſland Harle, which is about five leagues long, when you come from the northwards, you may runne about it on both ſides, and ſo come into the Wage of Bergen. The Harlefioerd goeth out about north and by weſt, and north northweſt betwixt Aſland and the land of Harle.

Harle.

How theſe Lands doe lye one from the other, and from the other Land.

From Schuytenes to Bommels-head, n. n. w. ſomewhat northerly	7 leag.
From Bommels-head to Cruys-oort, n. n. w.	9 leagues
From Cruys-oort to Harle north northweſt	13 leagues
From Schuytenes to the Outſeers, w. & w. & by north	4 leagues
From the Outſeers to Jeltefioerd, or the Wage of Bergen, n.	26 leagues
From Schuytenes to the Flye, ſouth and by eaſt ſoutherly	106 leagues
From Schuytenes to the Teſſell, ſouth and ſouth and by eaſt	112 leagues
From Schuytenes to Walcheren, ſouth	138 leagues
From Schuytenes to the Holms before Yarmouth, the courſe is ſ. & by w. or ſomewhat more weſterly	113 or 114 leagues
From Schuytenes to Flambroug-head, the courſe is ſouthweſt and by ſouth	104 or 105 leagues
From Schuytenes to Tinmouth, the courſe is ſ. w.	99 leagues
From Schuytenes to Boeckenes, w. and by ſ. ſoutherly	72 leagues
From the Outſeers to the Fly, the cours is ſ. and by e.	106 or 107 leagues
From the Outſeers to the Rocks Outweers, north and by weſt, ſomewhat northerly	43 leagues
From Jeltefioerd or the Wage of Bergen to Hitland, weſt	63 leagues
From Jeltefioerd, or the Wage of Bergen, to the north-end of Hitland, w. and weſt and by north	63 leagues
From Schuytenes to Hitland and by n. and w. n. w.	73 leagues
From Schuytenes to the north-end of Hitland, weſt northweſt ſomewhat northerly	80 leagues,

How theſe Lands doe ſhew them ſelves at Sea.



Thus ſheweth the Bock, when you are to the ſouthwards of Schuytenes before the Liet.



Thus ſheweth the hill Sick, when you are to the northwards of Schuytenes.

The eighth Demonſtration,

WHERE IN

The Coaſt of Norway betweene Jeltefioerd and the high poynt of Horrel is shewed.

FRom Jeltefioerd, or the Wage of Bergen, to Old, the Coaſt lyeth north northweſt, & north and by weſt about 16 leagues, that is all broken land, with many Rocks, where men may ſayle through within them. The Norway Barkes come of from Stade all alonghſt through that broken Land and Rocks, and within the Iſland Harle unto Bergen.

About 4 leagues and a halfe to the ſouthward of Old, lyeth great rouw of Rocks, lyingh 3 or 4 leagues without the other Rocks, thwart of from the ſhoare to Seawards, called the Outweers.

Betwixt them and Old lyeth a good Haven, called Southfoort, there lye three Iſlands before it, where men run in betwixt them alonghſt into the Haven.

Olde

De Cuſt van

NOORWEG

Vertoonde van Bergen tot aen d
van Horrel
t Amſterdam.
By Iacob Theuniſz. op 't watter in de

NOOR

Sudmers Leen

Coz Hoofd

Foedøy

Gasl

Lurø

Ladingh

Breesondt

't Wieft

Eylanden van Flomack

Syrydø

Noordsack

't Land van Stadt

Ulfelbreed

Sigdsack

Ornø

WEGEN

...gen tot ...aen de hoeck
... Horrel
...sterdam.
...t water ...de Lootsman.

W E G E N

Bergen

Ostersiö

Rachlier

Sotsbrygk

Tabsfiorn

I. Fotlie

Waldres

Lysefiord

Stavfiord

Oltefiord

Wtweer Kippen

Olde sond

Olde

Kyn

Duytsche mylen 15 in een graet

Spaensche mylen 17½ in een graet

Engelsche mylen 20 in een graet

11

Olde is a hig Rock, a good wayes from the land, & looſe from the other Rocks by the land, buth hath ſome ſmall Rocks lying about it, there lyeth alſo a row of Rocks, a good wayes off from it ſ. w. into the Sea.

About n. w. and n. w. and by north from Olde lye two rowes of Rocks, where of ſome lye above and ſome under water. When as you are either to the northwards or to the ſouthwards of Old, it doth ſhew it ſelfe with a great ſadle, in two hommockes, and going downe round on both ſides, but being thwart off, or weſtwards from it, then it lyeth in one round hill, almoſt like Coll. You may (comming from the ſouthwards) runne in about the eaſtwards within Old, northeaſt to Oldeſound, and come out againe to the northwards of Olde. Foure leagues to the northwardes of Olde-found lyeth Kyn, alſo a great rocke, which men may ſayle round about, and ſheweth it ſelfe with two ſharp Hommocks, allmoſt like a Cowes Clawe, or Biſhops Myter.

Waldres & Eaſterdal. Betwixt Kyn and Olde goeth a great Sound into the land, upon which lye two Towns, Waldres and Eaſterdal, n. w. and by weſt from Kye lye three or four Rocks, and alſo ſome ſuncken Rocks under water. Southweſt and by weſt about 3 leagues off from it, lye alſo ſome Rockes above, and ſome under water.

Ornael. Three or four leagues to the northwards of Kyn lyeth Ornael, alſo a great Rock, which ſheweth it ſelf in one great hig round Hill. Three leagues, or three leagues and a halfe to the northwards of it lyeth the ſouth-point of Stade. But Ornaell and Olde lye about north and ſouth, 7 or 8 leagues aſunder.

Stade. Betwixt Ornael and the ſouth-point of Stade goeth in a great broad ſound, from whence men may ſayle through within the broken land to the ſouthwards to Bergen. A little within the ſouth-point of Stade is a Bay, where men goe to anchor, thwart of a Sea-beakon, & lye ſheltred for a weſt winde. The land of Stade lyet from the ſouth-point to the north-poynt, n. n. e. and ſ. ſ. w. which is a whole mayn Coaſt but full cloſe alongſt by the ſhoare, with many ſmall Rock, but none that men may ſayle about with in them for to have any ſhelter for to Sea. The Norway Barkes of all places to the northwards of it, yea and all thoſe which come of from the North-Cape, can ſayle all alongſt the Coaſt of Norway unto Bergen, throug within the Rocks, except thwart of this land of Stade, there they muſt runne a Seaboard throug the Sea.

North-poynt off Staden.

Between theſe two foreſaid points are alſo two little havens where men may ryde, but a little or nothing uſed.

To the northwards of Stade the Iſland lyeth with many Iſlands, n. e. to the broad-ſound 9 leagues. About halfe wayes lyeth a little Iſland or Rock, called Swynoe (that is Hogges-Iſland) a league from Land without the other Iſlands of Flowach. When you are cloſe by north-point of Stade, & goe on n. e. you run throug within that little Iſland Swynoe, but with a n. e. and by north courſe about a Seaboard of it.

Swynoe

He that is bound to Roemsdall, or into the Sounds of Sudmer, muſt runne into the Broad-ſound, which goeth in at the ends of the Iſlands of Flowach eaſt and eaſt and by ſouth the outhermoſt of theſe Iſlands is called Haſſen. When you come to the end of thoſe foreſaid Iſlands, you ſhall ſee eaſt from you about two leagues, a great hig ſhort Iſland, called Goedeu, or of ſome Godſcheſand, and litle to the ſouthwards of it, ſomewhat further in a great black Rocke, of faſhion like a Hay-cock, or almoſt like a ſugerloafe, it is called by the ſaylers the Coockes-broad: ſayle in rigt with it, but bring not that foreſayd Rock to or under that Iſland, but keep it clear off without it: for els you ſhould ſurely ſayle upon the foreſayd ſuncken Rockes, which lye under water at the north-ſide of the Broad-ſound.

Broad-ſound.

Goedeu

From the Iſland Goedeu or Godſche-ſand runneth off alſo a little riffe, to the ſouthwards, or towards the ſ. e. from it. When you come by that Iſland runne about that little riffe, in betwixt it and the foreſayd black Rock, and anchor a little within that riffe, under Goedeu, runne not farre within it, for to avoyde a ſuncken Rock, which lyet ſomewhat further in, not farre from land, there ſtand two little wardes upon the ſhoare, a little within the riffe, for knowledge of the roade.

Behinde, or to the northwards of Goedeu lyeth the little Iſland Geske: upon it ſtandeth a little Church on the ſoud-ſide, before it men may alſo anchor in 8 or 10 fathom cleane ground. Geske.

A little within Goedeu, on the eaſt-ſide of Geske lyeth another Iſlands, greater then Geske, called Walderoe, on both-ſides of the ſoutheaſt-poynt of that Iſland men may anchor in good cleane ground, and lye land-lockt for all windes. Walderoe.

From thwart of Geske and Walderoe lyeth a great multitude of Rocks n.w. ſo farre into Sea, that comming a Seaboard by Swynoe with a n. e. courſe, you ſhould bee farre within them.

He that commeth from the nordwards may ſaile by weſt alongſt by theſe Rocks to Goedeu, and leave the a foreſayd ſunken Rocks (lying on the North-ſide of the Broade-ſound) on the ſtarboard-ſide of him, and runne in about by the point of Goedeu, as hath been beforeſaid.

You may alſo run into the northwards of Goedeu, to within betwixt Goedeu and Geske, and anchor within Geske, or under Walderoe, but it is not well to be done, but for them which are there very well acquainted.

There lye manye Rocks, ſome above, and ſome under water, where of men muſt take heede. In at the Broade-ſounde is the beſt and ſureſt.

For to runne from Walderoe to Roemſdale, go on to the northwards, alongſt by the great Iſlands Luycko, it is in that farewaye, 10, 12, 14, 16 and 18 fathom deepe, but even paſt Luycko runneth a ſtone riffe thwart over the farewaye, on againſt the point of the mayne land, you muſt thereabouts edge of from the Iſland on the larboard-ſide, and run indifferent cloſe alongſt by that point of the mayne land on the ſtarboard-ſide, and then you runne over the deepeſt of that Stone-riffe, to witt, in 3 fathom or thereabouts, aſſone as you ſhall be over it, it is againe verye deepe of 10, 20 and preſently an 100 and 200 fatum. Run on ſtill by the land on the ſtarboard ſide, and verie cloſe alonghſt by it, and leave all the Iſlands that lye on the larboard ſide, and ſo you ſhall come unto the River of Roemſdale.

Towards the ſoutheaſt from the foreſaid Iſland Godeu or Godſcheſand goeth a great deepe River into the land, to Sickule, Honigh-pale and other lading places more.

How theſe Lands doe lye one from the other, and from other Lands.

From Jeltefioerd or the Wage of Bergen to the Rocks of Outweers, n. n. w. and north and by weſt about	11 or 12 leagues
From the Outweers-Rok to Old, n. n. w. & n. & by w. betwixt	4 or 5 lea.
From Old to Kyne north and by eaſt and n. n. e.	4 leagues
From Olde to Ornael north and north and by eaſt	7 or 8 leagues
From Ornael to the ſouth-point of Stade, n. n. e.	3 leagues
From the ſouth-point of Stade to the north-point, n. n. e.	8 leagues
From the north-point of Stade to Swyno or Swynooſt, n. e. & by n.	4 lea.
From Swynoe to the outermoſt of Flowach, or the broade ſound, n. e and by eaſt	4 leagues
From the north-point of Stade to the Iſland Heſſen, or the Broade-ſound n. e.	8 leagues
From Heſſen to Goedeu, eaſt and eaſt and by ſouth	3 leagues
From Swynoe alongſt without the Roemsdaels-ſchares to Boede, the courſe is n. e. and by north and n. e.	
From Stade to the north-end of Hitland, w. ſ. w.	66 leagues
From Stade to the eaſt-point of Iſland, w. n. w.	200 leagues
From Stade to Greeneland, n. w. about	330 leagues.

Of the Tydes and Courſes of the Streamus.

Betwixt Bergen and Stade the water riſeth and falleth, but it keepeth no certaine tyde, a ſ. ſ. w. and n. n. e. Moone maketh there moſt full Sea.

Betwixt Stade, Luyckeſound and Boe a ſ. ſ. w. and n. n. e. Moone maketh high Water.

Heights.

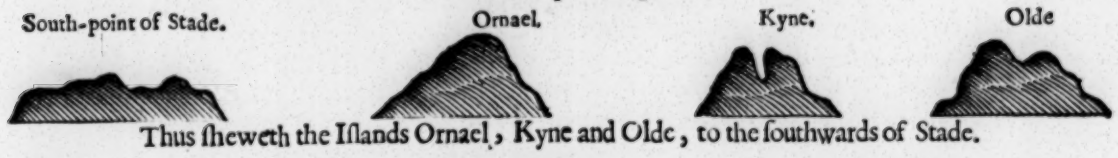
The Outweers-Rocks lye in	60 degrees 53 minutes
The Iſland Kyne in	61 degrees 30 minutes
Stade in	26 degrees
Broad-ſound or the Iſland Goedeu in	62 degrees 40 minutes
Luyckſound in	62 degrees 55 minutes.

How theſe Lands doe ſhew them ſelves at Sea.



The Land about Nortfoert and South-foert, when it lyeth eaſt and ſouth by from you.

South-point of Stade. Ornael. Kyne. Olde



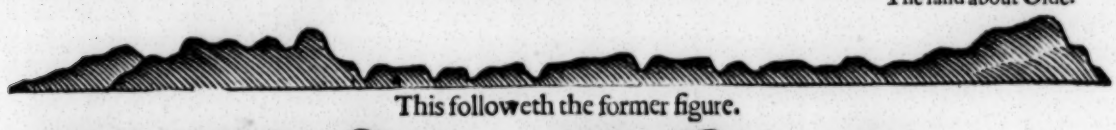
Thus ſheweth the Iſlands Ornael, Kyne and Olde, to the ſouthwards of Stade.

Stade.



When the ſoud-point of Stade lyet n.e. & by n. from you, then it ſheweth with the land from thence ſoudwards within Ornael, Kyne & Olde, like as it is pourtrayed in this & the figure following.

The land about Olde.



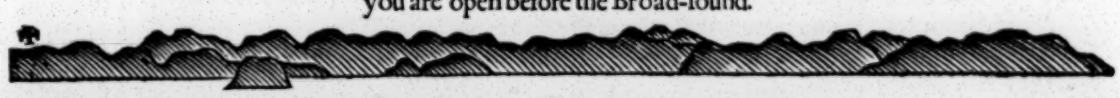
This followeth the former figure.



When the point of Stade lyeth ſ. ſ. e. 8 leagues from you, it ſheweth thus.



When Stade is ſ. ſ. w. from you, and Goedeu eaſt 4 leagues, then the Land betwixt Stade and the Broad-ſound like as is pourtrayed in this and the figure following, and then you are open before the Broad-ſound.



This followeth the former figure unto Stade.



The forme of Iſland Luycko, when it is eaſt and by north from you.



Thus ſheweth the Iſland Goedeu, being eaſt from you.

The ninth Demonſtration,

In which are ſhewed

The Liet of Dronten.

Luco. Luyck-ſound. Harn-ſoe. Lemſoe Flem-ſeu. Roofe Iſland. Roems dales Schares

TO the northwards or northeaſt-wardes from Geskelye (amongſt a greate manie other roks and little Iſlands) 5 greate Iſlands: The firſt called Luco, which is a hig Iſland, like as alſo the ſecond, betwixt theſe two goeth in a channell about ſ. e. called Luyckſound.

Upon the third called Harnſoe lyeth alſo a hig hill, but it is at both-endes ſomewhat lowe.

The fourth and ſmalleſt called Lemſoe or the love Iſland ſheweth it ſelfe in two or three lowe Hommocks.

The fifth called Flemſeu, on the Iſland, is a great & lowe Iſland, but ſeemeth little to ſee to at Sea, becauſe there lyeth but one hommock upon it (not verie greate) and of faſhion as the roofor cabben of a Hoye, or the weſt-end higheſt within the eaſt-poynt of that Iſland is a good roade in a bight, where men lye landlockt for all winds.

To the northwards or eaſtwards of Flemſeu or Roofe Iſland, goet in a channell called Nogwe-Fioert, lying in eaſt and by ſouth, at which men may runne in to Roemſdale.

Without theſe foreſayd Iſlands of from Luco unto Boede, lyeth a great multitude of out rocks, great and ſmall, called the Roemſdales Schares.

Eaſtwards from the Roofe Iſland, or Flemſeu, lyeth (amongſt other rocks and little Iſlands) the Iſland Lever, which men may ſaile about on both-ſides, whether they be bound outwards from Roemſdale to Bereſound or Boe, or inwards from Boe or Bereſound, and wil runne throug the foreſayd Iſlands. Lever. Bere-ſound.

Bereſound is a Haven within ſome rocks even to the ſouthwards or weſtwards of the point Boe, there it is good lying, but not good to come into without a Pilot, or ſome one that is there well acquainted. Boe.

Boede is an out-point, with a nec or ſmall point of land, faſt to the maine land, alongſt to the ſouthwards of it men may run in and up, to the ſ. w. to Bereſound, or els go to anchor in a bay on the north-ſide behind Boe, by ſome houſes, where they may lye ſheltred for a weſt winde.

From Boe to Stemneſheſt, the coaſt lyeth about n. e. & by north 2 leagues, betwixt them both about half wayes lye many ſmall lowe black Outrocks, as if they where ſowne alongſt the ſhoar, called the Stoppels, betwixt them & the maine land you cannot ſayle throug with great ſhipps without great danger. The Norwaye Barckes runne alongſt with in them, & alſo ankor there within, under a roc, which Stop-pels.

is

Lever.

Bere-
found.

Boc.

Stop-
pels.

Carte v

NOORW

vande hoeck van Kor

mendael, waer in hegt

Liet van Dr

NOO

Slot Dronten

Spijael

Holm

Roshuyck

Ruyssen

Vlieedael

Rasberg

Ryssselbosser

Schuuren

Ladenspyck

Salbe

Agnes

Wijgmyck

HITTEREN

NOOR

Schaerhoeck

Dromsnes

Noord fiord

Schrijnes

Flakholm

Glisen

Ruins fiord

Eyrlandtsit-

Zuyder Hetteren

Vlieland

Caerte van

RWEGEN

van Vorrel tot aen Mo:
ner inbegrepen wort het
t van Dronten.

R W E G E N

R. van Roemsdael

Noorthorn

Noordhoeck van Vorrel

Lemsje

Vlieland

Texel

Mangelsberg

Seedijcksche veerd

Noordveerd

Vroeghol

Lammerhorn

Staverenschen veerd

Brems

Stavoren

Lyemuts

Sweggesand

Enkhuysen

I. Schokland

I. Smeerhaven

Stemmes hoek

Stavers

Beersgat

Rotterdamsche Schuitveer

Rotterdamsche Eylandsen

Grijpsand

Grijp

de Rijsen

Vlieszand

Witholm

de Swarte Os

de Vogel

Michelsholm

Duytsche mylen 15 in een graet

Spaensche mylen 17½ in een graet

Eng. en Fra. mylen 20 in een graet

12

is somewhat greater then the rest, and lyeth about the middst of the Stoppels (or somewhat nearer the main land) called the Eartholm.

All the Islands betwixt Broad-sound or Flowach an Boe, belong under Roemsdale.

From Stade to Stemneshest (or Stemmesnes) the course is alongst without the Islands n. e. and north about 26 leagues, the land betwixt them both is called the Gouvernement of Roemsdael.

Stemnesheft. Stemnesheft is a hig point easy to be known, it sheweth it self (when as you get sigt of it, comming from the southwardes or the westwards) in two Hommocks thwart of it goeth in the Liet with divers entries.

About a shot off a cast-peece from the point lyeth a blak round Rock, altogether alone, not very great, called the Black-Oxe. black Oxe. Betwixt it and the point goeth in an entrie, called after the foresaid Rock, also the black Oxe, n. e. and by east, it is not verye wyde, and upon the shoalest 4 or 5 fathom deep at low water, the nearer to Oxe the deeper, and the nearer to the mayn land the shoaler water.

A little without the Rock, (the black Oxe) lyeth another great Rock or Island, pale of coulour, called Whiteholme, which you must leave (in sayling) also on the larboard-side, you cannot saile throug betwixt it and the black Oxe, because from the one to the other it is all full of roks, some above and some under water.

White holme. A litle within or to the end of Whiteholm lyeth a sunken Rock, which you must leave also on the larboard-side.

Sunken Rock. In calm weather or smooth water you cannot well see it, but when it doth blowe any thing hard, you may well perceive it by the breaking of the Sea upon it. On the starboard-side within White-holm, lyeth a great multitude of Rocks, as if they where sowed along the shoare, amongst these Rocks a little within or to the eastwards of the poynt Smeerholm. of Stemnesheft lyet Smeerholme, an Island, where men may ryde under, & lye sheltred for all winds, except with e. & n.e. winds, which blowe there in open, with these winds you cannot also come out there, neither with s. s. e. s. s. w. & s.w. winds, you cannot also come in there. You must sayle in there from the nordwards, behind the Island. In the going in (which is not above a cables lengt broad, 8 or 10 fatum deepe) lyeth a little round Rock, at hig water, about a fathom above water, by which you may runne about on both sides.

North northwest about a halfe league from the Black-Oxe lyeth also a greater and broader, but a lower Rock, The Vogel. called the Vogel, which at hig water lyeth a little above water, but with a spring-tyde the Sea runnet alongst over it. Betwixt it and the Blak-Oxe there seemeth to lye in a broade and wyde channell, but betwixt them it is full of sunken Rocks & foule grounds under water: When it is smoot water, it is in no wyse good to runne in there, but in foule weather and with a growne Sea, & that you cannot doe otherwyse, you migt runne in there by the breaking of the Sea.

A great half league n. n. w. from the Vogel lye yet some Rocks, lying to the eastwards, called the Mew-holmes, be- Mew-Holme. twixt them and the foresayd Rock the Vogell goeth in a broade & large channell, verie cleane without any dangers, which (after the Rock is also called the Vogell there men may see all that can doe hurt. The marcks for to finde this channell) comming out of the Sea are two hills, verye easy to be knowne, which lye from thence east and east and by north within the land. The westermost is a hille somewhat low and round of fashion, allmost like a slatt cap, called Clapmuts. The eastermostis a hig steepe sharpe Hill, above Clap-nuts & Mangel bergh. on the one side with a cutt like as steppe, called Mangelberg. When these are one in the other, then they are about east and by north from you, and then you are also rigt open before this channell.

For to sayle in there, keepe these two foresayd hills one in the other, & sayle in rigt with them east, and east and by north or (when as you come within the Vogel) somewhat more easterly, so that you have the foresayd Hills out a head a little on the larboard-side, untill that you come by the mayn land, & then e. n. e. alongst by the shoare, (if you be bounde to Dronten) unto the Island Edou or Edoe.

About a league within the Vogel lye two Rockes, the westermost is hig and somewhat round, the other is low and also round, lyeth to the eastwardes from the first, towards the land, you shall runne with the a foresayd course of e. & e. & by n. of from the Vogel, about a shot of a cast peece alongst to the southwards of the two Rockes. About halfwayes betwixt them & the Vogell, (but neareſt the two Rocks) lye two suncken Rocks, these you leave with the same course also on the larboard-side you may see the Sea al wayes breake upon them, except in very smooth Water. Two suncken Rocks.

You may also sayl throug betwixt these two foresaid roks & the Mewholmer, to witt, alongst to the northwardes of the roks, untill you come into the Liet, leav these 2 roks on the larboard-side, & the Mewholms on the starboard-side.

Alongst to the northwardes of the Mewholmes & these two foresayd Rocks lyeth also a channell where men may sayle throug into the Liet, then you must leave these two Rockes to the southwards on the starboard-side, and some other Roks to the nordwards of them on the larboard-side, and so come also into the Liet.

About three quarters of a league within these two foresayd Rocks, lyeth a great suncken Rock, rigt in these middest of the farewaye, which breaketh allwayes, and at low water is uncovered, about which you may sayl on both-sides. From this sunken Rock to Swegge-sound, the course is east & east & by north a league, but the Vogel or blak Oxe and Swegge-sound are distant about 3 leagues.

Sweggesound is a little Haven behind 3 great Roks, with Swegge-sount. a little Island of an English mile long on the east-side of it, when you sayle alongst by it, being but a little off from the shoare, you cannot discerne this Island from the mayne land, but it seemeth to be all whole land, he that is not there verye well acquainted, cannot perceive that to be an Island before that he come close to it, for to runne in behind it. You may sayle into Swegge sound either to the eastwards of that Island, or to the westwards of it according as the winde will serve. To the westwards off Swegge-Sound or the three foresayd Rocks, at the west-end of the end of the foresaide Island lye a great multitude Roks & foul grounds.

For to sayl into the western channell, you must leave them all on the starboard-side, & runne in betwixt them & the three foresaid roks: when you come to the end of these tree roks, you must luffe up to the soudwards about by them towards the n.e. or n. & anchor there in 7 or 8 fatum, there you shall lye landlokt for all winds, but with a storm out of the west the growne Sea can come in rowling there throug. You may also sayle in further behind the Rocks, untill you come in behinde the foresaid Island, in a little narrow Bay, there men doe lye in 2 fathom & a halfe, or 3 fathom, and also sheltred for all windes. In this haven of Swegge sound the shipps commonly doe lye there to tarrye for the winde. He that is bound to the westwards, may runne out to the southwards of the three foresaid Rocks, and he that is bound to the eastwards, may sayle out to the northwardes, throug betwixt the Land and the Island, but that channell is verye narrow and not above 2 fathom deep.

A halfe league to the eastwards of Swegge-sound lyeth the haven of Bremsnes, a little quarter of a league within it Bremsnes. on the starboard-side standeth a little Church, with some houses, which you shall espie behinde a point, when as you are come somewhat within, there dwelleth the Governour of Normer Leen. Men where wont to come to anchor there to paye custome, but now the Kings Customer dwelleth over against it in little Fossen, so that now at this present, men may eyther goe there, or to little Fossen for to paye their custome, according as occasion doth serve.

For to anchor before Bremsnes, you must looke out for 2 beakons, which stand by the Church upon the waterside, thwart of the innermost is the best Roade, and also the best grounde, let your anchor fall there, in 20, 15, 8 or 10 fathom, that is neare by the shoare, for there it is verye steep rising ground, and make you fast with a hawser to the beakons, there you shall lye land-lockt for all winds, you may not anchor any where thereabouts, then in the foresaid place, by reason of the great depth, & verye steepe grounds.

Litle Fossen or Fossound is a narrow haven, lying to the Little Fos-sound. nordwards, over against Bremsnes, betwixt two lands. In these 2 places lye the shipps commonly to tarryn for the winde, they that are bound to the eastwards before Bremsnes

and they are bound to the weſtwardes in little Foſſen. Men may alſo ſayle from Foſſen to the eaſtwards, through betwixt the foreſayde land, and come into Stan Wixfioerd againe in roome into the Liet of Dronten, but it is a verye narrow channell, and not well to be done for them which are not there verye well acquainted.

Fles-ſound. Three Fleſſen. Weſt northweſt from the Haven of Bremſnes goeth a channell through the Rockes called Flasſound, after three round Rocks, called three Fleſſe, which lye in a rowe without the eaſt-ſide of this channell, and thereby is very eaſy to be knowne. A little within the 3 Fleſſes, lyeth a great black flat rok, when you are by or in the Havenſmouth of Bremſnes, it lyeth w.n.w. or ſomewhat more northerly from you. For to run out from thence at that channell, ſayl right with the a foreſaid black rocks, and runne to the ſouthwards of it cloſe alongſt by it, leavingh it & the Fleſſes on the ſtarboard ſide, (to the northwards of this flat rocks & the Fleſſe it is all full of rocks, ſome above and ſome under water) you ſhall then leave on the larboard ſide of you two other round rocks, which you ſhall ſee lye about a ſhot of a caſt peece e.n.e. or n.e. & by e. one from the other. When you are come without the Fleſſes, you ſhall be without all the rocks, but ſomewhat to the weſtwards of them lyeth a great row of rocks lying w. n. w. a good wayes into Sea, you may runne weſt north weſt alonghſt by them unto the end: when you are come without the Fleſſes you may ſet you cours ſomewhat more northerly; for to geth Sea room betimes. In this foreſaid channell there is no danger, that can hurt you, but you may ſee it. In the offing you may know this foreſayd channell, by the foreſayd three Fleſſes.

Freekol The marckes for to finde Flesſound, comming in out of the ſea, are two hig Hils, the one called Freekol, lying upon an Iſland, towardes the ſ. e. not farre from Bremſnes, the other called Nothorne, lying far within the land. Frekol is a hill with two hommoks where of the ſouthermoſt is the ſmalleſt and loweſt. Northorne is a hill much higher, with a ſharp toppe, and lye alwayes white, covered with ſnowe. When this hill and the foreſayd ſouthermoſt Hommock of Freekol ſtand one in the other (then they are ſ. e. and by ſouth from you) and if that you ſayle in right with them, you ſhall without fail fal rigt open before Flesſound. It is a channell of a ſhoare inlet, and very commodious, as alſo Grypſound for them which comming from Dronten, Edou, or any other place in the Liet, and before night cannot ſayle to the channells of the black Oxe or Vogel, for to runne through them into Sea.

Nort-horne.

About a quartier of a league to the eaſtwardes of Bremſnes lyeth Stangwyxfioird, a large broad ſound, at the eaſt-poynt lyeth a great many rocks, within lyeth a haven, called Hamerſound, you may not come in there but with a Pilot, except you be there extraordinary well acquainted.

Hamer-ſound.

A quartier of a league within that foreſayd poynt, on the north ſide of Strangwyxfioird, lye two lade places, Jorianwach & Lynwach, men runne in there to the northwardes, behinde ſome Rocks, but it is alſo Pilots water.

Jorian-wach & Lyn-wach.

Towards the ſ. e. from Jorianwach, men may ſayle farre within the land, into divers ſounds Strangwyxfioird, Schaelwyxfioird, Northfioird, Walfioird, Wenningfioird, & other more. Upon the land of Jorianwach lyet the mountayne of Toeſter, in two hilles, to the eaſtwardes of it upon the next land lyeth the mountayne of Stadebuye, alſo in two hills, as Toeſter. Theſe hills of Toeſter and Stadebuy, when you come from the weſtwards alongſt the Liet, lye right behinde one the other, and ſeeme then to be more then one hill, being thwart of them in them in the Liet, or a Sea, each ſheweth in two which is together foure very hig hills, and are commonly called together without difference Toeſter Poeſter.

Toeſter Poeſter.

Betwixt Toeſter and Stadebuye runneth throug a narrow Sound, into the Northfioird, called Soolſound. To the eaſt of Stadebuye runneth alſo another ſound throug into the Northfioird, called Emmer-ſound, within which on the north-ſide, cloſe by the Northfioird is a lade place, where men lade good Deales.

Sool-ſound.

A quarter of a league in the Liet, to the eaſtwards of Emmerſound, runneth in another ſound, at the entrie broade & wide within it divideth itſelfe into two parts. Sayling in there you muſt leave Eeisholme and the Yellowe Iſland on the larboard ſide, and a rockie Iſland, called the flat Iſland, with manye Rocks on the ſtarboard ſide. The Yellow Iſland is not well to be diſcerned from the mayn land, for thoſe which are not there well acquainted, the end of the Northfioird runneth there about behinde it, and maketh it an Iſland. The Norwaybarkes runneth much thereabout behind it. To the ſouthwardes of the flatte Iſland lyeth a Rock or little Iſland, called Flatholme betwixt them both is good anchoring in 10 or 12 fatum landlockt for all winds.

Emmer ſound. The Yellow Iſland. Flat-holm.

Throug the ſounde men doe runne into Eurſound, a lade-place lying in the Northfioird, there ſtandeth a litle Church on the weſt-ſide of the flatte Iſland. Betwixt the litle Iſland is a good haven, where men may lye in 3, 4 and 5 fatum, it is not broade but cleane. To the eaſtwards of this Yellow Iland lyet the hig land of Dromſnes. From thence eaſtwardes, further up unto the Liet, towards Dronten or Agenes, it is moſt all whole land, and not ſo broken, as to the weſtwardes of it.

Eur-ſound. Drom-ſnes.

Thwart of the Rocks of Hammer-ſound (lying on the eaſt-ſide of Stangwyxfioird) lyeth a faire channell, called Grypſound, one of the beſt channells for to come in out of the ſea into the Liet, it is about a quarter of league broade, and goeth in cloſe to the eaſtwardes of the Iſland Grype.

Grype is a little rounde Iſland lying from the Vogel n.e. and by eaſt diſtant about 5 leagues, upon it dwell maniere Fiſhermen, which goe from thence to Sea, to fiſh upon divers bancks, of 40, 50, 70, 80 and 100 fathom, 4, 5, 6, 7, 8 and ſome 10 leagues without the land, which they knowe to finde by marckes on the ſhoare. On the north-ſide of Grype there lye but 2 or 3 Rocks cloſe to the ſhoare, ſome ſaye that there about is anchor ground in 12 fathom. On the ſouth or weſt-ſide, it is full of Rocks, but they lye moſt above water. About halfe wayes betwixt Grype and the three Fleſſes, ſomewhat without all the other Rocks, lyeth a ſuncken Rock a little under water, he that runneth alongſt without theſe Rocks, muſt be mindfull thereof.

Grype. Grype-ſound.

For to goe into Grypeſound comming in out of the Sea, you muſt bring the high Mountayn of Toeſter Poeſter e.ſ.e. from you, & ſayle in righ with it, and ſo you ſhall not ſayle to run in ſight of the Iſland Gryp, which is eaſy to knowe from the other Rocks, by the great manye Fiſhermens-houſes, which ſtane upon it, & upon no other Iſland nor Rocks thereabouts, leave that Iſland on the ſtarboard ſide, and goe in firſt e. ſ. e. right with Toeſter, being paſt the Iſland Gryp, bring Toeſter 2 poynts on your larboard bouwe, and goe ſo in ſ.e. you ſhall come into the Liet betwixt Hammerſound & Toeſter. From thence to the little Iſland Edou & about 4 leagues. About three leagues to the weſtwardes of it, or a league to the eaſtwards of Grypſound in the Liet, lyeth alſo a ſuncken rock, almoſt even with the water, and almoſt amidſt the fareway, neareſt the northſide, you may alwayes ſee the Sea breake upon it, leave it on the larboard ſide, and runne to the ſouthwards of it, there it is broadeſt, you may for a neede run alſo to the northwards of it throug betwixt it and the other Rocks, but it is there narrow.

Edou.

Edou or Edoe is a ſomewhat louw plain Iſland, a league long, and very narrow, which is the firſt land out on the larboard ſide, upon the Liet, that men have ſhelter of from the Sea, to the weſtwards of it, there is nothing but broken land, Rocks and little Iſlands, where the growne Sea commet rowling in throug. Not farre from the weſt-ende, upon the ſouth ſide of Edou, ſtandeth a little white Church, thwart of it, or a little to the eaſtwards of it, men may anchor in 8, 9 and 10 fathom. The ſhoare is ſteep riſing ground: If men doe come neare it in 4 fathom, they ſhall be preſently faſt, but the grounde is ſoft. When as men come from the weſtwards, and will anchor there, they muſt (comming neare the weſt-end of the Iſland) countinually feele with the leade for the anchor ground, and ſo ſoone as they feele it, let fall their anchor. thwart of the foreſayd little white Church, or a little to the eaſtwardes of it, ſo that the little Church come to ſtand over the houſes. When as they let fall their anchor in 10 fathom, and wending up towards the land, verye out the Cable, then the ſhippe ſhall come to lye there in ſixe fathome, the Liet is thereabouts a halfe league broade.

Upon the eaſt-end of Edou is alſo a little haven called Kurow,

Kurow. Kurow, and it is ſo little that there can lye no more then two or three ſhips, there lyeth a little black Rock not farre from the ſhoare, men doe runne in betwixt that little Rock and the Iſland, and anchor betwixt them both, there men lye landlockt for all winds, but the ground there is not cleane.

At the eaſt-end of Edou lyeth another Iſland ſome what Glaſeu. long, called Glaſeu. To the eaſtwards of it runneth a great Kams-fioerd. broade Sound into Sea, called Ramsfioird, but it is know of few. With northerly winds there commeth throug a great growne Sea into the Lieth.

High-land of Hitte-ren. To the eaſtwards from Ramsfioird lyeth the land of Hitteren, two greate long Iſlands. Norther Hitteren, and Souther Hitteren, together about 7 leagues long, ſo that he that ſayleth up the Liet thwart of them, can not perceive otherwiſe, but that he ſayleth in betwixt two mayne lands. At theſe ſouth-end or weſt-end of Hitteren, which is on the Weroy. eaſt-ſide of Ramsfioird lye two little Iſlands, called Weroy, there you may ſayle in betwixt them, and anchor in good white ſand-ground, you may alſo ſayle throug betwixt the little Iſlands, alongſt into the Liet, and then you leave a ſuncken Rock lying on the ſtarboard-ſide by the ſouthermoſt little Iſland.

From the Iſland Edou to the Highland, or the poynte of Drom-ſnes. Dromſnes it is n. e. and by e. n. e. diſtant about 3 leagues. To the weſterwards of that poynt, to witt, betwixt that poynt and the land to the weſtwardes of it called Schipnes, Schaers wycke. lyeth a haven called Schaerſwycke. In the mouth of this haven about the middeſt of the channell, but ſomewhat nearer Schipnes then Dromſnes, lyeth a ſuncken Rock, which falleth drye at low water, you may runne in about it on the both ſides. A little within the poynt, on the ſouth-ſide ſtandeth a Countriemans-houſe, before which you may anchor in 5, 6 or 7 fathom, cleane riſing ground, which you may come neare by your leade. This haven lyeth about a league more to the eaſtwards, then Ramsfioird, on the ſouthſide of the Liet, fith for to come to anchor in, for thoſe which can ſayl no further by day. To the weſtwards of this foreſayd haven Schaerſwycke alongſt the land of Schipnes, lye manye Rocks by the ſhoare, ſome above and ſome under water, therefore you muſt ſomewhat ſhunne the ſouth-ſhoare thereabouts, but the north-ſhoare alongſt by Hitteren is verye cleane. The Liet is thereabouts a great halfe league broade.

About 5 leagues to the eaſtwards of Schaerſwycke on Lexen. the north-ſide of the Liet, lye the two Iſlands of Lexen, to witt, Norther and Souther-Lexen, which are together about a halfe league long. There the Liet lyeth betwixt both eaſt northeaſt, and northeaſt and by eaſt.

In Souther-Lexen is a baye, before which lyeth a round Rok, making it there within a faire haven, called the haven of Lexen, the Beſt-haven of all the Liet. John Geurtſon Boogert of Amſterdam, hath (at this owne charges, for the commoditie of ſhips that come there) cauſed to be made a great Iron ring: men doe anchor either to the eaſtwardes or to the weſtwardes of the foreſaid Rock, where they will in 6, 7 or 8 fathom, and bringh a hawſer on the foreſayd Ringh, the further men doe runne into the Bight, betwixt the Rocke and the land the ſhoaler it is but all clean and clear ground.

Road under North Lexen. At the Norther-end of Norther-Lexen is alſo a place, where is a good anchor ground fith for to make road in.

Moltow Over againſt the haven of Lexen lyeth another haven called Moltow, where the ſhips doe oftentimes anchor in the Harveſt or beginning of the Winter, for to ſet ſayle with an eaſt winde, becauſe they can hardly get to ſayle from Lexen with eaſterly winds.

A league to the ſouthwards or to the weſtwards of theſe haven of Lexen and Moltow, on the ſouth-ſhoare, lyeth a Swan-holm. little Iſland, whereupon ſtandeth a Warder, called Swanholm which men may ſayle round about, under that little Iſland it is good anchoring (as well for them which are bound to the eaſtwards as to the weſtwards) in 4 or 5 fathom good clean ſand-ground.

The ſouth-ſide of the Liet of from Schaerswyke alongſt to Hegwycke, (which is a league & a half, and two leagues by the weſtpoint of Agenes) is moſt cleane with a litle fowle grounds: but from Hegwyke alongſt to Agenes the coaſt is fowle and Rocky. The north-ſide alongſt by Hitteren, is alſo indifferent cleane, except at the north-end lye ſome Rocks called the Terlingen, which lye ſomewat off to the ſouthwards from the ſhoare into the Liet. A little to the eaſtwards of Hemneſchell (an Orchard upon a high land) there the Liet is at the narro- Hem-neſioerd weſt, and no more then a halfe quarter of a league broad.

Hemneſioird lyeth over againſt the North-end of Hitteren, it is a bay where many Sawes doe ſtand, and abundance of good Deales are cut and laden.

To the northwards or eaſtwardes of the Terlingen, at the north-end of Hitteren, in betwixt Hitteren and Lexen, lyeth a haven called Deepſound, the Norway Barks (com- Deep-ſound. ming from the ſouthwards) run in there along behind Lexen to the northwards.

From Lexen to the poynt of Agenes on the ſouth-ſide, Agenes or to Euriland on the north-ſide, the Liet lyeth alongſt eaſt northeaſt and northeaſt and by eaſt 3 leagues. Agenes is the northermoſt poynt of the Liet, you muſt goe about by it when you are bound to Dronten.

Betwixt Norther-Lexen and Euriland lye two Iſlands, Foſſen, the ſouthermoſt is called Foſſen, the northermoſt Garten, Garten. to the ſouthward of Foſſen you may ſayl through alongſt into the Sea, but not without a Pilot.

For to ſayle from Lexen to Agenes, run alongſt by the north-ſhoare, which is the cleaneſt, the ſouth-ſhoare is fowle. A cables length or a cables length & a halfe to the weſtwards of the poynt Agenes, lyeth a ſuncken Rock not farre from the ſhoare. For to avoid it and more other danger, keepe alongſt by the north-ſhoare (but take heed that you runne not into no Bights or Bayes) ſo longh untill that you can ſee the houſes upon Agenes, then ſayl towards it, and then you ſhall not ſayle within any dangers on the ſouth-ſhoare. On the poynt of Agenes is alſo a great Iron Ring for to moore the ſhipps to there, by it is deeper and ſteepe of going foule ground. For to anchor there you muſt bee very cloſe by the ſhoare before you ſhall finde ground, and then you muſt make a cable faſt on the foreſayd Ringh, cloſe to the ſhoare it is about five a ſixe fathom deep fowle ground.

On the north-ſide of the Liet over againſt the poynt of Agenes, lyeth Euriland, a flat fayre greene land, upon it Euri-ſtandeth a little white Church about an Engliſh mile of land. from the ſhoare within the land, almoſt like the little Church of Edou, thwart of it is good road cleane flat riſing ſand, and clay ground, men doe commonly anchor there thwart of the firſt beakon in ſeven, eight, or nine fathom good clay ground, 16, 17 or 18 fathom men lye farre from the ſhoare.

With contrary windes, or that men can not come about Agenes, or taken with the night, they doe anchor moſt commonly there.

By Agenes there runneth out alwayes a great ſtrongh current to the weſtwardes, and by reaſon the Lands from thence to the ſouthwarder on both ſides are very high, and the wind (being ſoutherly) falleth there betwixt then both, alwayes ſtrongh to the northwards, men can not (in ſayling up) geth any thingh there with turningh to windewards, but in ſaylingh of they may geth much by the current with turningh to windewards.

A little about the poynt of Agenes on the ſtarboard ſide, Salva. is a great Bay called Salva, wherein is good anchor ground, and good lying, but with northerly winds it is very hard to come out there for thoſe that are bound out, or to the weſtwards.

From Agenes to the poynt of Roobergh, the Liet lyeth Roberg ſouth ſoutheaſt about three leagues. About halfe wayes or ſomewhat more on the weſt-ſide lyes another bay, called Lengswycke, where men may have roade. Roade.

Roobergh is a ſomewhat flat poynt, to the eaſtwards or to the northwards about this poynt is good road in ſixe or ſeven fathom. A good wayes from the ſhoare to the weſtwards of the poynt, the Norway Barks doe oftentimes anchor, but the ground there is not cleane, and therefore it is no good road for great ſhips.

Over

Over againſt Rooberg lye divers Bayes and havens, as Urkedal, Burſen, Bodwycke and other more, where many Deales are cut and laden.

From Rooberg to the little Iſland or Holm or Dronten, the courſe is eaſt 3 leagues, when you are a little paſt Roobergen, you ſhall ſoone eſpy it againſt the high land to the eaſtwards of Dronten, betwixt them both it is wyde and broad. From the poynt of Roobergh the land lyeth up to the northwards ſo far that at ſome places men can hardly ſee over the water. When you come by the Holm, you may ſayle about within it on both ſides, you muſt bring the Holm to the northwards of you, and anchor to the ſouthwards of it in ſix, ſeven or eight fathom, according as you lye cloſe to it or farre from it, there is cleane clay ground. The Holm and the Elf, or River Dronten lye north & ſouth about a ſhot of a caſt peece aſunder, betwixt them both it is every where good anchor-ground, & depth of 20 and 21 fathom.

About a bow-ſhot, northeaſt from the Holm lye two ſuncken Rockes, which at low water are uncovered. When as they are even covered with the flood, then you may ſayle in over the ſhoaleſt of the Barre into the Elf with a ſhip that draweth 11 foot.

To ſayle into the Elf of Dronten, it it Pilots water, there ſtand commonly two or three maſts for beakons, but there is no certainty of them that men may truſt unto, for they are oftentimes ſhifted: ſometimes they ſtand on the eaſt-ſide, ſometimes on the weſt-ſide, and alſo ſometimes on bots ſides. When you come a ſhips length or two within the beakons you ſhall come to a chindly poynt on the ſtarboard ſide, by which you muſt luf up to the Kay: upon the Barre it falleth with a ſpring tyde allmoſt dry, but withinſt it is deeper.

Of the Streames on theſe Coaſts.

From Stade to Dronten a ſouth and by e. and north and by weſt Moon maketh high water, with a ſpring it falleth a fathom and a halfe up and downe, with an ordinary tyde ſcarce a fathom.

The tydes run not there alongſt the land, but the flood falleth thwart on againſt the land, and the ebbe to the contrary thwart from the ſhoare to Seawards.

Courſes and Diſtances.

From Stemnes-heſt to Gryp, northeaſt and by eaſt	6 leagues
From Gryp to the Iſlands of Momendall, n. e.	18 leagues
From Gryp to Holyland, n. n. e. and n. e. and by north	27 leagues
From Gryp to Ruſt, north and north and by eaſt	64 leagues
From Gryp to the north-end of Hitland, ſ. w. and by weſt	115 leagues
From Gryp to the ſouth-end of Fero, w. ſ. w.	167 leagues
From Gryp to the eaſt-poynt of Iſland w. and w. and by n.	233 leagues

Of the Heights of theſe Lands.

The Iſlands Whitholme and Smeerholme lye in	63 degr. 54 min.
The Iſland Gryp in	64 degrees
The Town Dronten	64 degrees.

How theſe Lands doe ſhew them ſelves at Sea.



Thus ſheweth the poynt of Stemneſheſt or Heynſt.



Thus ſheweth the Iſlands of Roemſdale, when the middlemoſt of the three higheſt and the weſtermoſt is ſoutheaſt from you about 3 leagues.



The Iſlands of Roemſdale.

Thus ſheweth the Land between Stemneſheſt and the Broad-ſound, when as you ſayle a ſea-board alongſt by the Roemſdaels Iſlands and Schares.



The two figures belong at the Croſſes one to the other.



The land from Gryp weſtwards or ſouthwards towards Stemneſheſt like theſe two figures here above, when as you ſayle alongſt by it ſeven leagues without the land.

The .

The names of the Sands and Shoals marked with their respective Letters

a	Blyth sand	l	A. Shoale	w	Scarn
b	Holehaven Scarrs	m	Andrews	x	Woolpack
c	Chapman	n	Cutler	y	Spell
d	Middle ground	o	Middle ground	z	Hook
e	Nower and bony	p	Oraon	A	Middle ground
f	The Warp	q	whitering	B	Horse
g	Middle Middle gro.	r	Kentle bottem	C	Gilman
h	Heaps	s	Quefnes	D	Girdler
i	Alter	t	White Dike	E	Pan Sands
k	Ridge	u	Colburn	F	Cullemhime

Holehaven
Rochester
Chatham
Cliff
S. Benfleet
Lee
Isle of Grane
Shyrcnake
Quinborg
Schapeie
Leds
the Cant
Rock
Margat
North Foreland
Shoebury
Wakering
Colchester
S. Peters
Brickelsey
S. dfish
Crowfleet
Great Holland
Freeston
Wilson
Goldemers gat
The Sled way
Gabard
Gallopers
The Falls
Ship
Higham
East Tilbury
Scale of 4
Scale

Duytsche mylen 15 in een graet
Spaensche mylen 17½ in een graet
Eng. en Fra. mylen 20 in een graet

KENT.

SURREY.

MIDDLESEX

HOLLANDIA SEPTENTRIONALIS

a the Pool
d Limhouse Reach
e Grenwich Rea
f Blackwall Rea
g Bugbyes hole
h Woolwich Reach
Gallions Reach
Barking Reach
Dageham Reach
Erith Reach
The Rands
Long Reach
p S. Clements reach
q northfleet hope
r Gravesand reach
s Tilbury hope
t Sanders ness
u Cockolds point

Rivier van Londen

Pascaerte van ENGELANT Vant Voorland tot aen Blakeney. waer in te sien is de mont vande Teemse. 't Amsterdam. By Iacob Theunisz. opt water inde Lootsman

Greenwich
Stonenes
Durford Creeke
S. Clements
Greyes
Purfleet hills
Raynham Creeke
Woolwich
Barn Creeke
Deptford
South warke
London
Barnam
Wells
Wayborne
Cromer
Foulnes
Yarmouth
Albourrough Knapes
Red sands
S. Nicholas gat
Over Fall
the Nevarre
Scroby
Knock
Caister
Goodwin
Ashborough
Aldborough

a The Barnard
b Home head
c Cockle
d S. Nicholas sand
e Caister gat
i The Ower
k Bounch barrel
l The Ness
q Corton sand
r Hemsby sand
s Middle ground

The tenth Demonſtration,

IN WHICH

The Eaſt ſide of Englant, is shewed, from the River of London to Welles.

BY two wayes men may ſayle into the river off London, from the ſouthwards alongſt by the north Forland,& from the northwards alongſt by the Naes. If you will ſayle in there from the ſouthwards, then you muſt firſt ſhun the North Forland, it is there shoale a good wayes from the shoare, bring the North Forland alſo not more ſoutherly from you then ſ.w. that you do not run on againſt the north grounds, which lye farre to ſeawards. Commingh by the land, run alongſt by it, but kome not to neere it that you loofe ſigt of the ſpyre of the ſteeple of Margat behind the land, for then you ſhould come to neere it; but if you keepe ſo far from the ſhoare, that you can ſee the foreſayd ſteeple above the high land, or keep it even in your ſight, then you cannot take hurt of the ſouth grounds. Coming thwart of Margat, then you are paſt the foreſayd ſhoals or ſ. ground. Run then boldly towards the ſhoare, and within 2 cables lengts alongſt by it,for to avoid the north grounds, which lye farre to the ſ. wards the land. Sayle on ſo w. all alongſt by the ſhoare, untill that the Reculvers (which are 2 ſteeples upon one Church) come one in the other, and then you ſhall run in ſigt of the firſt buye upon the Laſt, which lyeth upon the foreſayd markes of the Reculvers, being by it you can alſo ſee the other buy which lyeth like as the firſt alſo on the north ſide, and over againſt it on the ſouth ſide ſtandeth a beakon, there you muſt ſayle throug betwixt them both, leavingh the buye on the ſtarboard ſide, & the beakon over againſt it on the larboard ſide. From thence you may with litle ſhippes, or ſhippes of litle draugt, but not with ſhippes of great draught, at high water run over the Swallow on Weſtnorthweſt towards Scheppy, for it is there ſhoale water, wit ſhips of great draught you muſt runne through the Fiſhers deep towards Black-tayle. You may alſo runne from Margat with ſmall Schippes alongſt by the ſhoare upon the lead at high water even unto the Scheppy, but in ſayling alongſt there, you muſt caſt your tides well, for the flood falleth very ſtrong into the Swellow, & the ebbe to contrary very ſtrong out.

Reculvers.

When you come by Scheppy, runne within two cables lengts alongſt by it, for to avoyd the taile of the Spanjard, untill that you be paſt Quinsbrough, edge then off from the ſouth ſhoare for to avoyd the Noere, which is a ſande that ſhoteth of from the ſouth poynt of the River a good wayes to the eaſtwards, upon the outermoſt-end where of ſtandeth allwayes a beakon, where by you may know it. Run alongſt to the northwards of it, leaving it on the larboard ſide, & alongſt in the middle of the channell in to the ſea-reach for to avoid the grounds, which lye off from the north-ſhoare, goe in ſo alongſt towardes Graveſend.

Scheppy. The Spanjard. The Noere.

To ſayle wit ſhippes of great draugts alongſt by the north Forland up in to the Tames, you muſt (when you are paſt the buyes upon the Laſt) ſayle throug the Fiſhers deep, toward Black-tayle, which lyeth from the ſecond buye upon the Laſts, unto the firſt buye in tho Fiſhers deep, n.w. and n.w. and by weſt, which lyeth upon the north-ſide of the ſand, which men doe call the Spanjard, thoſe two buyes lye a great wayes one from the other.

Fiſhers-deep.

Saylingh from the buye upon the Laſts it is a great wayes all ſhoale water, ſo that you muſt runne over there with hig water, but comming neare the buye upon the Spanjard, it is by little and little deeper water. He that will ſayle over here, muſt reckon his tydes well, the flood falleth there alongſt towards the ſouthweſt almoſt thwart over the deepe and ebbe to the contrary.

The ſecond buye in the Fiſhers Depe you muſt leave on the ſtarboard ſide, & the buye upon the Spanjaerd on the larboard ſide: being paſt that you come againſt the Blacke-tayle, to the ſouthwards of the Shoe-beakon into the rigt deepe. The eaſt-point of Sheppy ſhall then lye about ſouth from you. From the Shoe-beakon the courſe is ſouthweſt to the poynt of Black-taile there runneth of a hooke, which men might (at unawares) ſayl within (comming from the northwards) in 5 or 6 fatom, but if you keep from the ſhoar in 7 fathom, you cannot ſayle within it. From Black-taile to the beakon upon the Noere, the courſe is w.ſ.w. leave it on the larboard ſide, as before is ſayd, and runne in alongſt the River, in the middeſt of the cannell, betwixt both lands unto Graveſend.

For to ſaile into the River of London from the nortwards, Sowle. Dunwich.

For to ſaile unto the River of London,comming from the northwards, you muſt come neere the coaſt to the northwards of Orfordnes, which is to the northwards of all the ſands, there lye Albrough, Dunwich, Walderſwike, Sowle and Covehit, all betwixt Orfordnes and Leyſtaf. Covehit is a ſharp ſteeple like as alſo Leytſtaffe, but Sowle & Walderſwike, Albrough and Orfordnes are flat ſteeples, Sowle and Dunwich lye both upon the high land, betwixt them both is a vally,therein you may ſee Walderſwike,when you are thwart of it, Dunwich is the beſt to beknown of all theſe foreſaid Places: It hath two flat ſteeples, and on both ſides ſome trees. To the ſouthwards of it lyeth Aelbrough,which is alſo very eaſy to beknowne, it hath one high flat ſteeple with three Mills, the two ſtand to the northwards, and the third to the ſouthwards of Albrough when you are thwart of it, but ſailing to the ſoutwards, they come at laſt all three to the ſoutwards of it. The land without Albrough, and to the ſouthwards of it is very low flat and chidely land.

Aelbrough.

Betwixt Albrough & Dunwich about half wayes betwixt them lyeth a Wood, which is at both ends high, and in the middeſt low with a ſaddle; this you ſhal commonly ſee firſt when you ſall with the land thereabouts,& is the beſt to beknowne for to know te Coaſt by; the land without it, & to the ſouthwards is very low flat chindely land. About two leagues to the ſouthwards of Albrough lyeth Orfordnes, betwixt them both ſtand alſo two woods of trees, which ſhew them ſelves a farre of like Caſtles or Towers. Orfordnes is a flat ſteeple with a thick or broad Caſtle, which hath alſo a thick flat ſteeple, allmoſt of faſhion licke the ſteeple of Rarop,open above with holes in it like Bellholes.

Orfortnes.

Before Dunwich you may anchor, there is good lying in 8 or 9 fathom, ſomewath ſoft ground. Before Albrough is the beſt Road of al the coaſt thereabouts in 6 & 7 fathom.

Aelbrough-Knock.

Eaſt from Albrough about 2 leagues lyeth Albrough-knock, this is a ſand which at low water is not deeper then 7 or 8 foote: you may ſound round about it in 5 fathom, but is not good to come nearer it. With ſea winds you may deſcerne it plainly by the breaking the ſea upon it; but with lawderſy or weſterly winds, & faire weather,the ſea breaket not upon it, hee that runneth thereby to the northwards with in ebb ſhal ſee it commonly ripple very much upon it, like as upon moſt of the Engliſh banks, & not indeed upon the bankes, but againſt them, for upon the ſhoaleſt or middeſt of the banckes is alwayes the ſmootheſt water, like as you finde every where.

When as Albrough is weſt from you, & the two ſteeples of Orfordnes are one in the other, there you ſhall finde Albrough-knock. Theſe are ſuremarks of that ſand.

Whitingſand. The Court.

The Whiting or Whiting-ſand, is ſomewhat along ſmall ſand lying before Orfordnes, and the chindely land to the ſouthwards of Albrough, and lyeth alongſt the reach, but the ſouth-end lyeth further from land then the north-end, there is at low water above ſix or ſeven foot water upon it. Comming from the northwards, men ſayle commonly to the weſtwards of it, that is through betwixt the land and Whitingh-ſand, towards the Naze. Men may alſo ſayle alongſt to the eaſtwards of it, through betwixt Whitingh-ſand and the eaſtermoſt poynt of the Court or Court-ſand, which ſome doe call the Rib.

The north-end of the Whitingh lyeth alonghſt cloſe to the

the shoare, and lyeth from the steeples of Orfordnes s. e. & by south, it is so exceding stepe and needle to, that you shall have the one east 9, the next east 5 fathom, & then you are no more but a ships length from it, before you can have the lead again you should be upon it. When as you sit with the fore ship against it, it is at the shoare 5 or 6 fathom deep.

Alongst the inner-side, it is also everie where so steepe, that you cannot founde it, but one the outer side you may runne alongst by it in five fathom upon the lead, untill you come with in the sand.

When as you come from the northwardes and wil sayle through within the Whiting, you must run clouse along by the shoare, and s. w. about by the poynt of the chindle to the southwardes of Aelbrough, untill you come within the north poynt of the Whitinge; when the steeples of Orfordnes come to be northwest and by north from you, then you are right thwart of the north poynt of the Whiting, being within it goe a gaine more southerley, to with, southwest and by south towardes Balsy cliffe.

For to runne in to the eastwards of the Whyting.

If you should fall to the soutwards of Whiting, or els comming from the southwards will sayle in there to the northwardes, then bring the steeples of Orfordnes west-north west or northwest and by west, but for all not more northerly then northwest from you, and sayle so right in until you come by the Chindle strand, then run in alongst by it, as is before said, and then you shall run far enough alongst to the nordwards of the Whiting.

If you wil sail into the eastwards or the southwards of the Whiting, then bring the steeples of Orfordnes n. n. w. or n. w. & by north or n. w. from you, and saile in so rigt with them; until that the wood of trees, that standeth upon the next point tot the southwards of Balsy cliffe, come to Balsy cliff, which shall then stand about w. s. w. from you, keepe that aforesaid wood to the south-side of the cliffe, and saile in bouldly rigt with it, and then you shall runne rigt in the farewaye, in betwixt the Whiting, and the tayle of Courtesand, but if you bring the foresaid trees more then a handspikes length without the cliffe, you shall not saile to runne on against the point of the Courte. That aforesaid wood of trees is verie easy to beknowne, because there abouts stand no other trees.

Or bring the steeple of Balsy w. s. w. from you, and saile in so rigt with it, untill you come by Whitingsand, in 5 or 6 fathom, and leade it in so by it upon the leade, untill that you come by Balsy, or that you get deeper water.

When you come neare Balsy, whether you be come in from the northwards or the southwards of Whiting-sand, you must keepe somewhat of from the shoare, because of a litle riffe or final tayle, that shoteth of from the shoare, thwart of Balsy cliff, which you must avoyd somewhat with shippes of great draugts, there remaineth at low water upon it not more then 2 fathom, you may commonly perceive it well by the rippeling of the tyde.

You may also saile into the soutwards of the Ribbe (that is, the tayle of the Courte or Courte-sand) thus: bring the steeple of Balsy n.n.w. or a litle more northerly from you, and saile in so rigt with it, and so you shall runne into the northwards, or throug the Courte, at a channell of 8 fatom depth, the east-side of this channel is stepe, come no nearer it then 8 fatom, but by the westside you may runne in about by the Court upon the lead, untill you come whitin the Sands.

Balsy hath a hig flatt steeple, and lyeth somewhat within the sand behind the cliff, when as you come from the nortwards, you may see Balsy to the northwards or the westwards of the cliffe, but you saile it altogether behinde the cliffe, so that at last it commet out againe tho the soutwards of it.

For to sail into Harwich.

If you will saile to Harwich being past Balsy, then bring Balsy to that steep point to the southwards of Balsy where the trees stande upon, keep these markes so standing, and runne so alongst by the shoare, untill that you be over the point of the Chindle, the markes there of are two hig trees within the land, when they are about n. n. w. from you, then they come one in the other with the steeple of Harwich, and then you are rigt over the point of the Chindle, and then you shall gett deeper water, to witt, 4 & 5 fatom or somewhat more against the higest water, runne in then about by the point, the channell lyeth in rigt north but in the midst of the Havens mouth lyes a suncken Rockie and stonie ground, which you must avoid, you may sayle in about it on both sides, by the one shoare or the other, but alongst by the east shoare it is best, being within ir, you can not saile amiste, or take hurt, if you do not saile bluntly against the shoare: There you may anchor al over, where you please before the towne in 5, 6 and 7 fatom. You may well also goe further into the Bigt, there it is clean everie where. The fareweye betwit Orfordnes or Whiting-sand and the Naes lyeth most s. w. & by south, and is 6, 7 or 8 fatum deepe, in turning to windewards, you may runne to the shoare in 5 & 4 fatum, but close to the sands it is deper, to wit, 8, 9 and 10 fatum, the neater the sands the deeper water.

The Naze.

But for to saile from Balsy to the Naze, you must marke the steeple of Balsy, when it commeth within a capstane barres length neere to the south-end of the Cliffe, then keep them so long untill that the house upon the Naze come over the two fields which lye on against the hig land, or come over a black head upon the sea-side, saile then rigt in with them, untill that the steeple of Harwich come to the northwards from you in the little valley off a red-cliffe, leave then the first markes, keepe the steeple of Harwich in that litle valleye, and goe on s. s. e. untill that the third point of the Naze come without the two other points, so you shall run troug betwixt the Naze & the Court, there remaineth at low water no more then 8, 10 and at some places 12 foot water, therefore it is not good to runne trough here unlesse that it be a quarter floud or with a shippe of great draugt at halfe floude, there it is verie uneve grounde rockie & stonie. The point of the Naze is verie stonie, foule & uneven, the nearer the shoare thwart of that point the shoaler, but the nearer the sands the deeper.

When that the third point of the Naze commet without the two other points or the other land, and that it doth againe beginne to Deepen off, to wit, 4 or 5 fatum, then goe s. w. somewhat southerley, or s. w. and by south unto the buye upon Longsand. Thwart of the Naze is Longsand verie steepe, so that it cannot be well founded with the lead by them that are not there verie wel acquainted, but somewhat more to the southwards, you may run alongst by it in 4 fatum and 3 fatum & a halfe, until that you get the buye upon Longsand in sigt of you. The north-shoare to the southwards of the Naze is also flat, you may run alongst by it also upon the lead, without any danger.

Long-sand.

Buyes upon Long-sand & the Spits.

The buye upon Long-sand lyeth in 2 fatum and a half at half floud, you must leave it on the larboard side, and the buye upon Spits on the larboard side, which lyeth a litle shoalet, they lye about south & by east, & north & by west a musket shot one from the other. The course betwixt the two buyes is s. s. e. & n.n.w. but you must reckon wel your tyde, whether you run troug there with a floude or with an ebbe. Upon the Spits, betwixt the two buyes it at halfe floud at least 3 fatum & a halfe, or almost 4 fatum in the rigt channel, a litle to the southwards of the buy upon the Spits stand two masts above water of a lost ship, which are good markes. Being over the Spits the course to Whitakers beakon is south southwest.

The Spits.

Whitakers beakon.

About halfe wayes betwixt them stand also two mastes more on the same west-side, & over against these masts lyet a middle plate, where upon lyeth a buye on the west-side the fareway is along to the westwards of this middle plate throug betwixt that foresaid buye and the mastes.

Middle plate.

To the northwards of that foresaid middle plate goeth out a channell by the south-side of Longsand, which you may sail out & in, called the Kingsdepe. If you come from Whitakers beacon, past the middle-plate, so far that you get sigt of the buyes of Longsant or Spits, goe then boldly e. n. e. & n. e. & by east into sea, or upon the lead alongst by Longsand, but if you should run into sea, to the southwards of the midle-plate, you should with an e. n. e. waye fal whitin the hoke of the mouse. This Kingsdepe is a readie channel, & is used almost by al ships for to run out at.

Kings deep.

For to runne in at this channell out of the sea, bring the point of the Naze n. w. from you, and sayle in so with it, untill

For to sail into the Kings-deep.

untill that you come neare Gomsliet or Long-sand in five fathom, goe in then alongst by it about w. s. w. and s. w. and by west, and keepe the sounding of Longsand; and so you shall not saile to runne in sigt of the buy upon the Spits and the foresayd masts to the southwards of it.

From Whitakers beacon to the Shoebeacon the cours is s. s. w. somwhat westerly, comming thwarte of the Shoebeakon, then lieth the east point of Seppie about south from you. From the Shoebeakon the course is alongst s. w. to the point of Blacktayle, there runneth of a Hooke, which men might sayle within comming from the northwards: But if you keepe from the shoare in 7 fathom, you cannot take hurt of it, but in five fathom you runne within it. The like Hooke is also a little to the southwards of the Shoebeakon which you migt unawares saile within, comming from the southwardes.

Shoebeakon.

From Blacketaile to the beacon upon the Nore, the course is w. s. w. The Nore is a sand, lying from the southpoint of the maine land of the river, farre to the eastwardes therefore leave the beacon on the larboard side, and goe on west alongst amidst the channell into the river, betwixt both the lands, as here before hath beene said in the description of the Fishers deepe.

Blacktayle. The Nore.

From Aelbrough alongst by Dunwith to Covehit the koast lyeth north and by east somewhat easterly, and south and by west or somewhat westerly 5 leagues: but from Covehit to Leystaf north and south 2 leagues. Aelbrough, Dunwhitch and the sands lying thereabouts, are descript here before.

Betwixt Dunwhitch and Covehit lyeth the haven of Sowle which is a little shoale river, a little within it divideth it self into three parts, upon the northermost arme lyeth Sowle, upon the middlemost Walderswijke, and upon the southermost Dunwitch.

Sowle. Dunwitch.

Covehith hath a high sharpe steeple, thwart of it lyeth a banck not far from land, which falleth almost drye at low water, but a half floud may sayle through betwixt it and the land in 3 fathom, upon the outer side it is verie steepe, so that you cannot come nearer it then 9 or 10 fathom. When the steeple of Easton is w. n. w. from you, then you are to the southwards of the banck, and when the steeple of Covehit is s. w. & by west from you, then you are to the northwards of it.

Two leagues to the northwardes of Covehit lyeth Leystaf, and two leagues more to the northwardes of it lyeth Yarmouth. The steeple of Leystaf is a high sharp steeple, and standeth a greate Musket shot within the land Yarmouth. The steeple of Leystaf is a high sharp steeple, and standeth a greate musketh shot within the land from the houses, so that in sayling alongst you may bring the steeple on both sides of the houses. Of from Leystaf begin the banck or Holmes of Yarmouth, untill thwart of Winterton, there go divers channells through them, which men may sayl through, upon divers marks, for these that are there acquainted, you may sayle through within these bancks, of from the Leystaf until past Winterton.

Leystaf. For to come within the banks of Yarmouth.

If you will run through from before Leystaf within these bancks, then looke out for the fire beakons which stand by Leystaff, which are 2 little white houses, the one standeth beneath upon the cindle on the sea side, and innermost upon a little hommock, somewhat farther within the land. When you come from the southwards, they shew them selves to the northwards of the towne, but come at last, thwart of it. In the night there is alwayes fired upon them for to sayl in there also by night. Bring these foresayd fire-beakons n. w. and by north, or somewhat more northerly from you & sayle in so right with them either by night or by daye, the Church of Leystaf commeth then to the southwards of the Town over a Countrie house by the water side, when you come against the channell, there it is at low water no more then 3 fathom depth, keep these foresayd fire-beakons one in the other, or bring the innermost rather a little to the northwards of the outermost, for to avoyd a little plate, which lyet on the south-side of the Deep, but the channell is indifferent wide, run untill you come against the strand in 2 fathom and a half or 2 fathom, so neare as you will or can, and go then up northwardes alongst by the shoare, you shall then (having sayled a little to the northwards) meet with a flat, where upon remaineth at low water lesse then 2 fathom depth, with laden ships you must anchor before that flat and stay for high water, it floweth there about 8 foot, up and downe, so sone as you are over the flat it will be 5, 6 & 7 fathom deep, edge then to the shoare, and sayl toward it & then you come before the Brewehouse, there is the roade, where you may anchor in 4, 5 or 6 fathom from thence northward toward Yarmouth alongst the shoare is all over good anchoring and good ground.

Buyes upon Long-sand & the Spits. The Spits. Whitakers beakon. Middle plate. Kings deep. S. Nicolas channel

About an English mile or somewhat more to the southwards of the towne Yarmouth, is the haven of Yarmouth, it hat two wooden heads, were you must sayle in betwixt them both against the higest water, when the strongest of the floud is spent, at halfe floud it is dangerous, because of the strong tide, which should ligtly carrie you into the bigt, against the shoare, (against your will) it is also best to run in alongst by the southerhead, there it is depest. At Yarmouth in the roade men doe commonly anchor to the northwards of the haven, right twart of the towne, in 5, 6, 7 or 8 fathom, the nearer you anchor to the sandes the deeper water you shall have, but all good sand and soft grounds.

Haven of Yarmouth. Roade before Yarmouth.

If you wil sayle into the Roade of Yarmouth throug the Holmes, then bring the sharpe little steeple, that standet to the northwards of Yarmouth, within the land, over the broade Castle, or bring the mill to the north side of the towne: keep these marks so standing, & goe in so w. n. w. you shal find in this channell not lesse water then 8 or 9 fathom at half floud, this channell is called S. Nicolas channell: on the northside it is deepest being come in, the roade is rigt before the towne in 5 and 6 fathom.

Thwarte or over against the haven of Yarmouth goeth also a channell throng the Holmes for to sayle in throng there comming from the southwardes then bring the Souton over the north side of the haven; the great tree betwixt Northon and that flat little house or Castle, sayle in rigt with them, and keep these marcks so standing, untill that you be within the Holms, within them lyet a plate on the starboard side, a little to the northwards of the haven, called the Middle ground, you may sayle about it on both sides, on the inner side in 5 fathom, but towards the Holmes, or about to the eastwards of it in 8 and 9 fathom.

From Yarmouth to Winterton, the coast lyet north & by west & n. n. w. two leagues.

If you will sayle from Yarmouth fort throug within the banks to the northwards, sayl along by the land, and keep the sounding oft the shoare in 5, 6 or 7 fathom, untill that you have the two firebeacons (which stand a little to the northwards of Castor) one in the oter, sayl then rigt wit them eyter by day or by nigt (in the nigt there is fired upon them) you shall so run over a flat, throug betwixt 2 buyes, which lye each of them upon a tail of a sand, sayl boldly, in with the foresayd fire-beakons, untill you come againe neare the shoare, in 5 or 6 fathom, being come by the shoare, run then again alonst by it, & kepe the sounding there of as before, al alongst untill you com before Winterton.

Thwart of Winterton runnet of a dangerous riff, which is dangerous to sayle about by nigt, if men doe come to near it, which is upon the end so steep, that (in 3 fathom or 2 fathom and a half) you shall not be a ships lengt of from it. But when as you (comming from the southwards) keep your self in 6 or 7 fathom, then you cannot sayl so neare to it. To the southwards of that rif upon the land, standet a fire tower, which is verie easy to be knowne, with a fire beakon, and also a little with house when these come one in the other, then you thwart of the point of the riff.

To the northwards of this riff upon the land stand two white fire-beakons, were upon there is fired by nigt for to avoyd this riff. When as you come twart of the poynt, then are these also one in the other, so that these doe serve for twart marks, and the other to the southwards of them for longst marks, for those that will sayle about it from the southwards. Comming from the northwards alongst the shoare in 5 or 6 fathom untill you come by the fire-beakons upon the north-side, you must keep somewhat of from the shoare, before they come one in the other, or els you should run on against the riff. When they are one in the other then they stand s. w. and by west from you, and when as the hig fire-beakon to the southwards of Winterton comet to be s. w. somewat more westerli from you, then you are twart of the point of the riff: you may not also run about far within that riff, for then you should ligtly bee foule of the grounds on the eastwards of it, especially when you come from the northwards for there it is not verie wide betwixt them both.

From Winterton to Haesbroug point, the course lyet n. w. 3 leagues.

Betwixt Haesbroug & the Admirals-house stands a ruinous tower upon the strand. When as you keep it and the steeple of Haesbroug one in the other comming from the northwards, then you run rigt upon the point of the foresaid riffe. Foure leagues without the land lyet Wintertou sand, the south-end where of lyet about east & the north-end n. e. from Winterton.

Thwart of Admirals-house, not far from the shoare, lyet also a little plate were no ship can go over, but if you goe in 6 or 7 fathom, you cannot sayle to neare it, you may also runne throug in 2 fathom, betwixt this plate and the land.

From Haesbroug to Cromer, the coast lyet alongst n. w. and by west, & w. n. w. 3 or 4 leagues.

The land lyet from Cromer to Bornom first w. n. w. and west and by north and then west, and west and by south 9 or 10 leagues.

From Cromer to Blakeney it is 2 or 3 leagues. At Blakeney standet a big steeple, which you may see alongst farre over the land, when it commet to the little steeple, then you have the first buy of the cannell, which lyet at the south-end of the Pole, which is a sand at the west-side of the cannell of Blakeney, go from the first buy to the other & alongst by them untill you come within the haven. This a tyde-haven, where men doe lye dry at low water. Four leagues to the westwards of Blakeney lyet Wels, betwixt them both lyet the foresayd shoale, called the Poll and Pyper, there is shoale far of at sea. At the west-end of this shoale, goet in the Deep of Wols, the beacons that you must sayle in alongst by stand al alongst by the Pyper. When Hoebrom standet e. s. e. from you, then you are to the westwards of the Pyper, thwart of it is good road in 6 fathom. Wels lyet then s. e. from you, and the trees stand then also against the steple, then you may sayle open into the haven of Wels, alongst by the foresayd beakons.

Blakeney. Pol and Piper. Wells.

Of the depths & shoales about these Places, and in what depths men may see the land.

Five or six leagues n. & n. n. e. from the north Forland or from Margat lyet a bank, called Kentish-knock, upon it is 3 fathom belowe.

Five leagues n. e. from this bank it is 20 fathom deep.

Northeast & by north from the north Foriand 9 or 10 leagues, & about east from the Naze, 8 leagues in to the sea, lyet a banck called the Galloper, of 5, 6 and 7 fathom depth.

The westroks is a stonie ground, lying between the Court & Longsand, where upon is no more then 2 fathom water at a halfe floud.

Without that sand or Harwitch 5 leagues from the Naze, it is 20 and 22 fathom deepe, being there you may see the land.

Thwart of Orfordnes you may see the land from below, in 22 fathom.

Five or six leagues without Leystaffe and Yarmouth s. e. & east into Sea it is 27 and 28 fathom deep, there you may see the land.

Four leagues east & by south from land, without the Holmes of Yarmout lyet a banck, called the Newsand, which is not deeper then 2 fathom.

East northeast at least 7 leagues from land thwart of Yarmouth, it is 15 fathom, the ground red grosse sand with little round stones, being there you may even see the land from below.

Twart of Winterton and Cromer 7 or 8 leagues from the land, it is 18 & 19 fathom deep, and there you may see the land.

Winterton sand lyet 4 or 5 leagues from land n. e. from Winterton.

The east side of England, from the River of London to Welles.

What Moon maketh hig Water at the Places.

At the north Forland a north and south Moone maket hig water.
Within the Thames a south and by east Moone.
Before the Thames, at Harwitch and Orfordnes a s. s. e. Moone.
At Leystaff and Yarmouth a s. s. e. Moon maket hig water.
Without the bancks of Yarmouth, and before Cromer, a s. e. Moon maket full Sea.
Betwixt the bancks of Harwitch & the Holmes of Yarmouth the flood falleth south, and the ebbe north.
Thwart of the bancks of Winterton and Cromer the flood falleth s. s. e. & the ebbe n. n. w.

Of the Tydes and Courses of the Streames.

From the north Forland the flood fallet to the Recolvers, and over the Barkes w. s. w. and by south.
Without about Good-win towards Kentish-knock, the flood fallet n. and by w. and n. n. w. theere commet the floud also against it from there commet the floud against it from the northwards, and meer one another by the Galloper, with very great rippeling and noyse, (where of this banck is also called the Galloper) and fallet to the westwards into the sands and channels, and also to the eastwards towards Flanders.
Betwixt the North Forland & Orfordnesse the streame fallet without the sands south and by east, and s. s. e.
When you are to the northwards of the Galloper, then you can reckon no ebbe, then that which runnet alongst England to the northwards, the Streames fall there alongst the coasts. To the southwards of the Galloper, the Ebbe goeth to the contrary to the southwards, and the Floud to the northwards.

Courses and Distances.

From the north Forland to the north-end of the Goodwin the course is south and by east — one great league
From the north Forland to Kentish Knok n. e. & by n. & n. n. e. — 4 or 5 leag.
From thence to the Orfordnesse north — 11 leagues
From the north Forland to the Galloper n. e. and by north — 9 leagues
From the Galloper to Orfordnes n. n. w. — 9 leagues
From Orfordnes to the Nase s. w. — 8 leagues
From Orfordnes or Abre to Leytstaff south and north — 8 or 9 leagues
From Abre to Abreknock e. s. e. — one great league
From Leytstaff to Yarmouth within throug the banks south — 2 or 3 leagues
From the north Forland to the Wielings, the course is east somewhat northerly about — 27 leagues
From the north Forland to the Mase, the course is e. n. e. or somewhat more easterly about — 31 leagues
From the north Forland to the Tessel or Maers-diep n. e. somewhat westerly — 47 leagues
From the Naze or Harwitch to the Mase east — 31 leagues
From Orfordnes to Tessel e. n. e. — 37 leagues
From Yarmouth or Leystaff to Walcheren or Wielings s. e. and s. e. and by south — 52 leagues
From the point of Cromer or Schiel, to the Tessel, the course is east — 40 leagues.

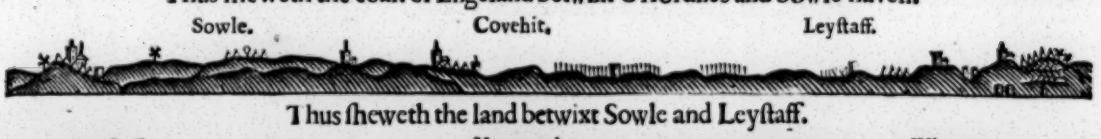
Of the Heights of these Lands.

The north Forland lyeth in — 51 degrees 30 minutes
Orfordnes lyeth in — 52 degrees 14 minutes
Yarmouth lyeth in — 52 degrees 48 minutes.

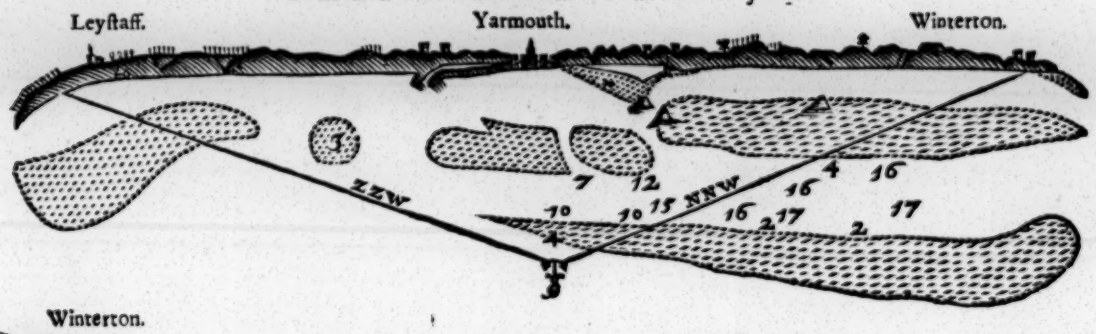
How these Lands doe shew them selves at Sea.

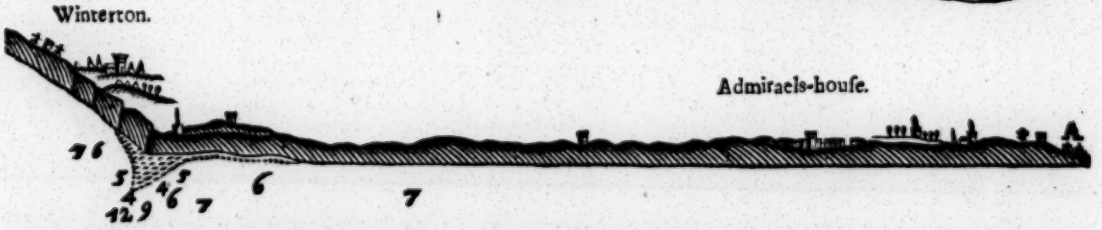


Thus sheweth the coast of Engeland betwixt Orfordnes and Sowle haven.

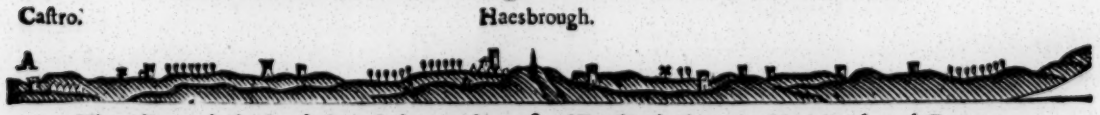


Thus sheweth the land betwixt Sowle and Leystaff.





The land to the northwards of Winterton, untill past Haesbrough sheweth when you sayle alongst by it, as is demonstrated in these two figures followin the A A one to the other.



Thus sheweth the land alongst the north coast of England, betwixt Yarmouth and Cromer, when you sayle throug within the bancks.



The eleventh Demonstration.

Where in are set forth

The coast of England & Scotland, betwene Welles & the Iland Coket.

Bornum.

BEtwixt Wels & Bornum lyet a bank. You may ride under it in 5 or 6 fathum, at half flood there is upon it no more then 2 fathum water.
He that will saile into Bornum, must goe in at hig water, & he must bring the steeple against the Blakhouse, & saile so in by the beakons, leaving them on the larboard-side. These are all tyde-havens.

From Bornum to Chappell, the course w. s. w. 2 leagues, to the northwards it lyet the Sonck, which is sand that falleth dry at low water. You may saile about it on both sides of the Sonck unto Lin. Chappell. The Sonck.
For to sayle into the easter channell of Lin, then sayle about to the eastwards of the Sonck, and bring that wood of

es, Chap.
al- peil.
des
The
yle Sonck.
ood
of

de Cust van

ENGELAND

tusschen Welles en 't Eyland Cogge

't Amsterdam

by Jacobus en Casparus Lootsman op 't water inde Lootsman.

Linton
Walpoel
Boston
Batterwyck
Wrangel
Sutsee
Capelle
Bornum
Gep
Sowk
Flaues
Engemeels
Hul
de Humber R.
Dreasull
Isington
de Welle
Brittingtun
Filsmborg
Flamborger hooft
Fyley crake
Orrey
Lemmon
Duytsche mylen 15 in een graet
Spaensche mylen 17½ in een graet
Eng en Fra mylen 20 in een graet

The RIVER OF Tyne.

De REVIER DE Tyne.

NEW-CASTLE

Heaton

Walker

Bicar

Dents hole

Gates head

S. Tantlins

Halfway tree

Black scarth

Hebborn

Golden pannes

Leaden hosk

English miles 60 to a degree

Dutch miles 15 to a degree

Priests

Tynemouth Castle

East Chirton

Tynemouth Towne

Spanish work

High light

Low light

Sparrow hawk

Tynemouth barre

North Sheelds

Middens

Herdmd

South Sheelds

The names of the sands in the River of Tyne.

a	Town Shore	h	Larro middle ground
b	Riddells shore	i	Larro sand
c	Ballasse shore	k	Dirtwick sand
d	Bill shore	l	Coble deane
e	Pace sand	m	Bird sand
f	South road sand	n	Bill sand
g	North road sand	o	Muscle scalp

DVRHAM

TRJDVNG.

Seaton

Vierbotton

Ingse

Hartypoole

Sunderland Pyrs

Root clif

3 Revis

Hompsthorp

Whitby

Scarenbrig

Robinhoodsbay

Tees

Gates head

New Castle

S. Tantlins

Halfway tree

Larro

South Sheelds

North Sheelds

Tynemouth Towne

Ryv

Coket

Cogge cyl.

Easter
chann
of Li

Weste
chann
of Lin

Bosto
deepe

The
Flats.

For
fail int
Bosto
deep.

Elle-
knock

Long-
land.

Ingold
mills.

Dogs-
head.

Eaſter channel of Lin.

of trees, over the poynt of Sitſem of Suytſon, and Chappell e. from you, then goe in ſoutheaſt and by ſouth & you ſhall find the firſt buye, then in ſ. and by w. and ſ. ſw. & by little more weſterly; untill you come about the poynt, there the buyes and beakons ſhall ſhew you the way.

When you come about the poynt, then you may runne through the ſands, into the norther channell, and ſayle out againe by the ſame into ſea, by the buyes and markes that are thereof. This norther channell lyeth into ſea n. e. and n. e. and by eaſt, and is very well buyed and beakoned.

Weſter-channel of Lin.

You may alſo ſayle into the weſtwards of the Sonck, of witt, ſouth and by eaſt in alongſt by it and ſo runne to the firſt buye, and then from the buye alongſt by the beakons, unte Lin before the towne. When you come from the eaſtwards, you may well run throug within the Sonck, alongſt by the land, cloſe alongſt by Chappell, and in ſouth and by weſt unto the foreſayd firſt buye.

Boſton-deepe.

For to ſayle from Cromer or Blakeney to Boſtondeep you muſt goe on w. and by n. untill you come by the land betwixt the Hommer and Lagerneſſe. From the Soncke lyeth a long banck, called the Flats, north into ſea league

The Flats.

which at low water falleth dry at divers places. You run with the foreſayd weſt and by north courſe, (when you are by Cromer or Blakeney a little without the land) alongſt without, or to the northwards of this banck at hig water, you may well goe over it, the ground on the eaſt-ſide goeth up flat and playne, run boldly to it without, feare, untill you come in 4 or 3 fathom, hee that uſeth his lead can take no hurt of it, but on the innerſide, that is on the weſt-ſide, it is very ſteepe, ſo ſoone as you be over the ſhoaleſt, you ſhall get ſuddenly deepe water, & good ſand ground, under it, or within it is good riding for eaſterly winds.

For to ſail into Boſton deep.

For to ſayle into Boſton-deepe, throug within the Knok or Elle-knock, you muſt keepe the ſounding of the ſhoare in 4 or 5 fathom, ſo long untill that the point of Lagerneſſe be w. n. w. from you. Betwixt the ſhoare and Elle-knock

Elle-knock.

remayneth at low water, 5 fathom in the middeſt of the channell, but Elle-knock falleth dry at low water. When as Lagerneſſe is w. n. w. from you, then goe on ſ. e. throug betwixt Elle-knock & the ſhoale, (which ſhooteth of from the ſhoare to the weſtwards of Lagerneſſe) untill that you get againe depth of 6 or 7 fathom in this goin over remayneth at low water no more then 2 fathom, but it floweth there about 3 fathom up & downe. Being over it, then goe

Long-ſand.

on ſ. w. alongſt betwixt Longſand and the ſhoale, which lyeth of from the, it is deepe betwixt them both 9 & 10 fathom, you may ſound both-ſides (as well the ſhoale which lyeth of from the land, as Longſand) in 5 fathom, but the flats is ſomewhat ſteeper then Longſand.

For to ſaile without Elle-knok into Boſtons-deepe, commings (as is beforeſayd) to the weſt-land, you muſt looke

Ingold-mills.

out for the two ſteeples of Ingoldmilles, ſtanding ſomewhat to the northwards of Lagerneſſe, bring them one in the other, and then they ſhall ſtand about n. n. w. from you, keepe them one in the other, and goe on ſ. ſ. e. untill that the trees upon the point bee by weſt Lagerneſſe, come without the point of Lagerneſſe, and then you runne

Dogs-head.

throug betwixt Elle-knock and Dogſhead, that is a ſhoale without Elle-knock when the foreſaid trees come a handſpikes length paſt, or to the eaſtwards of the point of Lagerneſſe, then goe on ſ. w. and then you runne rigt into the deepe, betwixt Elle-knock and Longſand, and ſo you ſhal finde betwixt Elle-knock, and the point of Longſand 5 fathom depth, being paſt Elle-knock, it wil be 8, 9 and 10 fathom deep.

If you will ſaile out of the ſea into Boſton deepe, and not alongſt by the land, as is beforeſaid, then bring the foreſaid trees a handſpikes lengt withouth the point of Lagerneſſe, which ſhall then ſtand from you about w. ſ. w. ſaile in ſo rigt with them untill that the hig land within Lagerneſſe or Winfleet begin to come even without the point of Lagerneſſe, which ſhal then be from you ſomewhat more northerly then weſt, then you are within the point of Longſand. Or elſe there ſtand three little houſes on the ſea ſide, about halfe wayes betwixt Lagerneſſe, and Ingoldmils, when they come to be n. w. from you, and thoſe foreſaid trees without the point, then you are alſo within the point of Longſand, goe in then ſ. w. betwixt Elle-knock and Longſand, as foreſaid. A little paſt Lagerneſſe lyeth a ſhoale or plate about the middeſt in the fareway, but neareſt Longſand when the trees upon the point to the ſouthwards of Winfleet come in the ſecond valley of the hig land of Winfleet, then you are rigt twart of this ſhoale, edge therefor to one ſide or other, rather towards the ſhoale, there is wideſt keepe boldly the ſounding of the ſhoale, and run ſ. w. alongſt by it, untill that the ſteeple of Boſton come over the ſteeple of Butterwyk, that is alſo a flat ſteeple, but ſmaller then that of Boſton ſtanding in wood of trees, thwart of in runneth the ſhoale ſomewhat of with a point, being paſt it, goe on w. ſ. w. all alongſt by the foreſayd ſhowld, untill that the great ſteeple of Boſton come over the ſecond mill, there is good anchoring by the weſt ſhoare in 5 fathom at low water. He that commeth there at low water, muſt anchor and ſtay for the tyde untill halfe floud, before that you may not ſail further in from thence, and them and then you ſhall not alſo find more then 2 fathom upon the ſhoaleſt. Butterwycke.

From thence the Deep lyeth in alongſt by the beakons about ſouth to the third beakon, being paſt that w. ſ. w. & then by little and little, more weſterly and northerly, but run all alongſt by the beakons, leaving them on the ſtarboard ſide, at laſt on north into the River.

Upon the point of the river ſtandeth a houſe which is a ſheephouſe, before that you come by it, ſeemeth as if there were no opening, by reaſon that is al even green land, run in by it, all alongſt by the land, being paſt it, the River doth open it ſelf. Being come within the points you muſt run in betwixt two dikes, a league up untill you come before the towne, in the river it is at half floud everie where deep enough. When as that you come a little within the houſes of the towne on the larboard ſide, there you muſt let fall your anchor and ſtay untill that the water begin to fall, then you ſhal have floud enoug for to drive to the Kay, there you make faſt with one cable, it dot not begin to bee ebbe there, before that the water be fallem 3 foot.

An eaſt and weſt Moone maketh in Boſton deepe the higheſt water, but before the towne an eaſt and by ſouth and e. ſ. e. Moone. He that commeth from Boſton, and will ſaile out at the deep with a hig water, let him look out for the foreſaid hig land within Lagernes, when that commeth behinde the point of Lagernes, then he may boldly ſet his courſe whether he deſireth to be, either to the eaſtwards, northeaſtwards, or northwards, there is nothing then that can him.

From Lagerneſſe to the Hommer it is about 7 leagues, moſt north, betwixt them both, about a league to the ſouthwards of the Hommer lyeth a place called Saltfleed haven a little to the northwards of a ſharpe ſteeple called Wilgrip. Thwart of that foreſayd Saltfleet haven, about an Engliſh mile from the ſhoare lyeth a banck or Sandplate, not verie great, which at low water falleth almoſt drye, you muſt runne about without it, and leave it lying towards the land from you; but yet for need you may alſo ſayl throug within it. Plateby Saltfleet haven.

For to ſail into the Humber.

For to ſayle into the Humber comming from the northwards, you muſt ſayle alongſt by the ſhoare, and runne about by the north-point, but comming by the point you muſt keepe ſomewhat of from the ſhoare in 4 or 5 fathom for to avoyd a little tayle, which lyeth of from the point, being about it, runne to the little Iſland, which lyeth a little by weſt that foreſaid north point.

If comming from the ſouthwards you deſire to ſayle to the Humber, then bring the Pawle Steeple (which is a hig ſharpe ſteeple ſtanding on the north-ſide of the Humber) a little by ſouth the north-point of the Humber, or over that foreſaid little Iſland, and ſaile ſo rigt in with it, untill that you come by that little Iſland, being come by it, leave it on the ſtarboard-ſide, and run in cloſe by it, for to avoyd a great Sand, called the Bull, which lyeth of from the ſouth ſhoare, almoſt unto that little Iſland. When that you come within that little Iſland, then bring the two beakons (which ſtand upon that little Iſland) one in the other, keepe them ſo ſtanding, and ſayle ſo on to the weſtwards towards Grimsby, you leave the Buye upon the Bull lying then

Road before Grimsby.

then on the larboard ſide, & run along to the northwards of it: In this faire way it is 7 and 8 fathom deepe. You may not come neerer the Bull then in 6 fathom. Before Grimſby you may anchor in 3 or 4 fathome at lowe water, it floweth there at leaſt 3 fathom up and down, a w. ſ. w. and e. n. e. Moone maketh before the Humber the higheſt water. Within the foreſayd Iſland at the north poynt of the Humber, you may anchor in 3 or 4 fathom: There lye commonly ſhips that are bound out, & tarrie for the Wind.

From Grimsby in alongſt to Hull, the courſe is w. n. w. to the end of the Banck or ballaſt plate, which you muſt leave lying on the north ſide. On the ſouth ſide lyeth alſo a little plate, there ſtandeth commonly a Beakon upon it, that you muſt leave on the larboard ſide, and run along to the northwards of it, being paſt it, you may run alongſt by the ſouth ſhoare in 3 fathom. The fareway there is 4, 5 and 6, and thwart of the foreſayd Beakon 8 and 10 fathom. When you come to the end of the Bancke, you muſt edge up to the Weſtwards about by the poynt on the ſouth ſide, but there runneth of a Elat which you muſt avoyd. Being a little about that poynt you ſhall ſee the Towne af Hull, lye before you, there you may anchor before it in 6, 7, or 8 fathom: An eaſt and weſt Moon maketh full Sea before Hull. He that will anchor upon the ballaſt-plate, let him bring the flat ſteeple which ſtandeth a little to the northwards or the eaſtwards of Hull to the high poynt of Paul, and keepe them ſo ſtanding untill that he come to the plate, there it is beſt for to anchor upon it.

Flambrough head. From the north poynt of the Humber called Spurnehead to Flambrough head, the courſe is northnorthweſt 9 or 10 leagues, betwixt them it is ſhoale water of 6, 7 and 8 fathom deepe, Flambrough head hath many white ſpots and Chalke Hils, eſpecially upon the north ſide towards Fyley. Flambroug hath a Head or Piere. A league to the weſt ward of it on the ſouth ſide lyeth a little Towne called Burlington, which hath alſo a Piere. You may anchor there in the Bay in 6 or 7 fathom.

Burlington.

Fyley. Three leagues by weſt Flambrough head lyeth Fyley, in a round baye to the ſouthwardes of a poynt that lyeth out, which hath a Pier Head, where you may lye within it, but it falleth there drie at lowe water.

Fyley-bridge. Whithout the head of Fyley lyeth a rock under water, called Fyley bridge, betwixt it and the Pier you may well lie a flote with a ſhippe of an hunderd laſts, 5 fathom at low water, and have ſhelter for a northeaſt & eaſt winde.

Scharbroug. From the poynt of Fyley to Scharbroug it is northweſt 2 leagues. Scharbrough hath two Pieres or Heads, where you may runne with in them at high water from the ſouthwardes, but at low water it falleth there alſo drie. Men come in there from the ſouthwards.

Robbin hoods bay. From Scharbrough the coaſt leyth alongſt by Robbinhoods bay, untill before Whidbye, moſt northweſt, but paſt Whidbie the land falleth in weſtnorthweſt and by little and little more weſterly unto the Tees.

Robbenhoods bay is a good road for a ſ. ſ. weſt & weſt winde, there men lie in 7 or 8 fathom.

Whidby Whidby is a tide haven, which falleth drie at lowe water, at the eaſt ſide of the haven runneth of a riffe of rocks, wheere you muſt take heede. For to ſayle in there, you muſt runne in betwixt the two beakons, untill that you kome in betwixt the two lands, and anchor there.

From Whidbie to the Theeſe the coaſt lyeth moſt weſt northweſt, and weſt and by north, about ſeven leagues, betwixt both lye Huntley foote and Redcliffe. Huntley foote is a high hill, lying on the Sea ſide, about 4 leagues to the eaſtwardes of the Tees. Redcliffe lyeth about halfe wayes betwixt Huntley foote and the Tees, it is a cliffe of ſuch verie redd earth, that when the ſunne doth ſhine againſt it, it is to ſee to like redd cloth theſe two are verie good marckes, for to know this coaſt by

Huntley fote.

Redclif.

Cloſe to the ſoutwardes of the mouth of the Teeſe lye three Riffes, which lye about a halfe league e. n. e. into Sea, which are verie foul and ſtonie, and fall drie at low water, upon the north ſide they are verie flatt, ſo that you may ſound about by them, in five, ſixe and ſeven fathom, but on the ſouth ſide are ſoo ſteepe that comming neare them, and ſounding in thirteen and fourteen fathom, you ſhoulde upon them, before you ſhould be able to heave the lead the ſecond time.

A league and a halfe to the northwards of the Theſe lyet Hartlepole, upon a point that lyeth out al moſt like an Iland. For to goe in there you muſt runne into a bigt to the ſouthwards of the towne with a head, untill you come againſt the towne, there you ſhall lye drye at low water.

About halfe wayes betwixt Hartlepole & the Theſe, runneth of alſo a riffe of rocks thwart from the ſhoare a good wayes into Sea, come no nearer in them 5 or 6 fathom. There ſtandeth a mill to the northwards of the towne Hartlepole, if you keepe that to the weſt-ſide of the towne Hartlepole, then you cannot ſayl upon that foreſayd riff, but if you bring the foreſaid mill a little to the weſtwards from the town, ſo that you may plainely ſee through betwixt the mill & the towne, then you ſhal not faile to ſayle upon that riffe. Hartlepole.

For to ſayle into Theſe comming from the northwards, you muſt obſerve theſe markes following. A good wayes to the northwardes of Hartlepole, a little to the ſouthwards of Sonderland, and a little within the land lye upon the hig land, two hommocks cloſe one to the other, verie eaſy to beknown, of faſhion like Womens Breaſts, called the Paps, keepe theſe two hommoks even without the point of Hartlepole, which ſhall then ſtand from you n. w. and by north and ſayle ſo on to the ſouthwardes, and you ſhall before the Tees, & ſhall not ſayle to neare the ſands that lye out before the mouth of the Tees, & lye about a halfe league into ſea. For to fail into the Tees The Paps.

On both ſides as well on the north-ſide as the ſouth-ſide of the Tees ſtand two little white houſes for fire-beacons: If you come from the northwardes and get ſight of them, bring firſt the two ſouthermoſt one in the other, which ſhall then ſtand from you ſouth and by eaſt, ſayle right in with them, untill that the other two which ſtande on the northſide of the Theeſe, come alſo one in the other, then leave them on the north-ſide, & ſayle in rigt with them that ſtand on the north-ſide, and ſo you ſhall runne in amidſt the channel, there is upon the barre or ſhoaleſt, at low water no more then 5 foote, but it floweth there with a common tyde, at leail 2 fathom up and downe. A ſ. w. Moone maketh there full Sea. If when you come from the ſouthwards, you will ſayle into the Teeſe, then bring the innermoſt of the two fire-beakons (which ſtande on the north-ſide) at leaſt a handſpikes length, or the length of a capſtone barre, to the northwards of the other, and runne ſo weſtwards towardes them, untill that the two fire-beakons on the ſouth-ſide are one in the other, then ſayle rigt with them, as hath beene ſaide, untill that the two fire-beakons on the northſide come one in the other: when you have them one in the other, runne rigt with them, untill that you come by the northſhoare, and then cloſe along by it.

When as that you come ſo farre in paſt the firſt firebeakon, to wit, that you may ſee Hartlepole betwixt the two fire-beakons, there you may anchor in 3, 4 or 5 fathom, or when Hartlepole commet betwixt the foreſaid firebeakons, then go ſ. ſ. w. until that you come by the ſouth ſhoare, there it is alſo good anchoring. Further it is Pilots water unto Stockton, fore there within, the depes doe ſhifte oftentimes and that in ſhorte time, 3, 4 or 5 times in a Summer.

He that will ſayle in there with northerly winds, & a floud muſt reckon well his tydes, for the floude falleth ſtrong to the ſouthwards of the grounds, & ſhould there by bee ligtlie carried behind the banck to the ſouthwards of the buye, which lyeth upon the poynte of the banck.

Beſides this foreſaid channell there runneth yet another channell throug the grounds, which lye of from the northpoint of the Thees. For to ſayle in there, you muſt take marke of the two hig lands within the land, to te ſouthwards of the Tees, bring them within a handſpikes length one to the other, or bring the Paps to the weſt-ſide of Harnelope, then ſhall alſo a foreſaid two hig lands come within a handſpikes length neare one to the other, ſayle in rigt with them, ſo you ſhall run rigt into that new channell, alongſt throug that a foreſayde ſand, and come againſt the buye (upon the ſands, on the ſouth-ſide of the Deepe) againe in the rigt fareweye. When that you get again deeper water, or have the two firebeakons on the northſide one in the other, then goe in towards them, and further as hath been beforeſaid. For to fail into the new channel

About

About ſeven leagues to the northwardes of the Tees lyet the River of Sonderland, a little to the northwardes off the Paps, which ary very good markes for to know the land by there abouts. When the Paps are ſ. ſ. w. from you, and that you are about an Engliſh mile from the land, then are rigt before the River of Sonderland, the ground is there abouts indifferent cleane, but ſomewhat ſtonie, you may anchor there in 4 or 5 and 6 fathom. On both ſides, as well on the north-pointe, as the ſouth-pointe of the River it is ſtonie. On the north-pointe ſtandet a beakon in the water, there you muſt runne in, within a little ſhippes lengt alongſt by it, being paſt that you ſhall get deeper water, to wit, a fathom and a halfe, and two fathom at low water, but upon the barre remainet no more then tree foote. With a common ſpring and hig water there is about two fathum & a half, or a little more.

After this a foreſaid firſt depth of a fathom and a half or two fathum, you ſhall meet againe wit a ſtonie floote, about tree ſhips lengts broad, upon it is at hig water about 11 or 12 foote deep, according as the tydes ſhall runne, being over there, it is again deeper. A little paſt that is a narrow place, where a long ſhippe ſhall ſcarce be able to wend, within it is wide enoug, and every where good anchor ground.

From the tees to Tinmouth the courſe is n. n. w. 8 or 9 leagues. Two leagues to the ſouthwards of Tinmouth lyet the point of Sonderland, but cloſe to the ſouthwards of Tinmouth goeth in the River of Newcaſtle. From the point of Tinmouth ſhooteth off a ledge of roks, you muſt ſayle in by it, leaving it on the ſtarboard ſide. The markes for to ſaile in to this River are two fire towers or firebeakons, which ſtand upon the north ſhoare, bring them one in the other, or innermoſt (that is the higheſt) a little to the northwards of the outermoſt or loweſt, and ſayle ſo rigt in, alongſt by the a foreſaid ledge of rocks on the north-ſide, and ſo you ſhall have upon the ſhoaleſt two fathum at halfe floud, a ſouthweſt Moone maketh there full Sea. The ſouth ſhoare is flatte, you may lead it in there with the ſounding pole, for ſhips, that goe not depe, in ten foote at halfe floude. When you come within, runne all alongſt by the north ſhoare, untill paſt the little towne Sheels, edge then over to the other ſhoare, untill you come throug the crooked reach, there the river lyeth up againe a little to the northwards, and then to the ſouthwards to Hawkes-bill, and about by it to the towne New-caſtle.

Sonderland.

Seven or eight leagues to the northwards of Tinmouth lyeth the Cocke Iſland, betwixt them both about halfwayes lyeth a River called Bly, where the Frenchmen doe much ſayle to fetch coale. From the north-point of this river runneth off ledge of rocks a great ſhot of a eaſtpeece; about ſ. e. into the ſea, but the ſouth-ſide, & the coaſt to the ſouthwards of it, it is very cleane ſand-ſtrand. Upon the ſouth-point ſtand two beakons: If you will ſaile in there bring them one in the other, and ſayle rigt in with them, and then you can take no hurt of the foreſayd ledge or riffe of the north-point. When that you come by or thwart of the outermoſt of the two foreſayd beakons, you ſhall ſee there by in another ſmaller beakon, that ſtandeth upon a little ledge rocks, that ſhooteth off from the ſouth-poynt leave that on the larboard-ſide, and runne in alongſt cloſe about northwards of it. The foreſayd ledge of Rockes on the north-ſide remaineth at hig water (a good wayes from the land, and alſo at ſpring tyde) above water, within it is a bigt, there it is good lying for a north or n. e. winde, & there remaineth at low water two fathom depth. In the mouth of the River it is with an ordinary tyde and hig water about two fathom deep, or ſomewhat more, and it floweth there two fathom up and downe, ſo that at low water it falleth allmoſt altogether dry.

Bly.

The Cocket Iſland, is a very little Iſland, and not hig, it lyeth about a halfe league from the land, you may come to anchor in it for an eaſt, ſouth and ſ. e. wind, but the winde comming to the northwards of the eaſt, maketh there a bad roade, for you muſt lye betwixt the Iſland and the maine land where you haven no ſhelter for a north winde. On the ſouth-ſide of the Iſland the ground is foul, & a little to the ſouthwards of the Iſland, runneth off a foule ledge of rocks from the ſhoare, untill thwart or paſt the Iſland. He that commeth from the ſouthwards, muſt kepe the Coaſt of Bambroug without the Iſland, or els he ſhould not ſayle to ſayle upon the poynt of that foreſayd ledge.

Cocket Iſland.

Betwixt that ledge and the Iſland it is alſo very narrow, ſo that a man ſtanding at low water marke upon the rockes of this ledge, ſhould allmoſt be able to caſt with a ſtone unto the Iſland. For to ſayle in there, take heed unto theſe marcks here after deſcribed: there ſtandeth a houſe upon the ſea-ſide, which is a Salt kettel, & alſo a Caſtle ſomewhat further in within the land, which doth ſhew it ſelf hig enoug, bring them one in the other, & then they ſhal ſtand ſomewhat more northerly then weſt from you, and runne ſo rigt in with them, and ſo ſhall runne in rigt amidſt the channell betwixt both, being come within edge up behinde the Iſland, & anchor there in 5 or 6 fathom.

About this Iſland there run alſo manie more divers little rivers in to the land, but they ſal moſt dry at low water.

Of the Depths & ſhoales about theſe Places, and in what Depths men may ſee the Land.

Twart of Winterton and Cromer, 7 or 8 leagues from land, it is 18 & 19 fathom deep, and there you may ſee the land n. e. and n. e & by north from Cromer lyet a Banke, where upon remainet at half floud no more water then 4 fathom, from thence you may ſee the land indifferent wel.

North and by eaſt from Blackeney lyet a banke, were upon remainet at halfe floud no more water then 5 fathom. In 18 fathom tereabouts you may ſee the land. From thence to the point of Chappel it is al ſhoaly.

About n. n. w. & north & by weſt from Winterton-ſand lyet the banke Cromer 5 leagues without the coaſt.

To the northwards of the Humber of Hull, you may ſee the land in 25 fathom.

Flambroug-head men may ſee in 35 fathom.

Scharbroug men may ſee from below in 45 fathom.

Of the Tydes & Courſes of the Streames, about theſe foreſayd Places.

Before Crommer a ſ. e. Moone maket hig water.

At Blackeney, Wels, Bornum and Lyn, an eaſt and weſt Moone.

Before the Humber off Hull an eaſt northeaſt and weſt ſouth weſt Moone.

From Blackeney to Flambroug-head, the floud fallet ſ. e. and the ebbe northweſt.

At Flambrough & Fyley, in the Peer a weſt ſouthweſt Moone maketh full Sea.

At Scharbrough and Robbinhoods-Baye a ſouthweſt and northeaſt Moone.

Before the River of Newcaſtle a ſ. w. & n. e. Moone maketh alſo the higeſt Water.

Thwart of Flambroug-head, Scharbroug, the Teeſe, & alſo thwart of the river of Newcaſtle, the floud fallet ſ. e. and the ebbe n. w.

To the northwards of the Tees, the floud fallet ſ. ſ. e. alongſt the land, & from the Tees to Scharbroug ſ. e. & by eaſt.

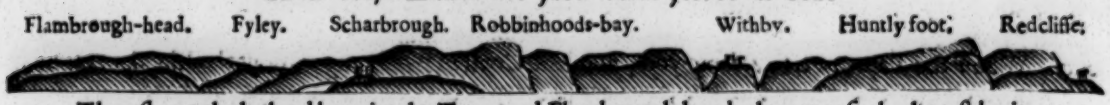
How theſe Lands doe lye one from the other, and from the other Lands.

From Crommer to Blackney w. n. w.	3 or 4 leagues
From Blackeney to Bornum throug within the ſand, weſt	7 leagues
From Bornum to Chappel w ſ. w.	2 leagues
From Chappel to Elleknock, or the north-point of Boſtondeep, the courſe is n. w. and north	5 leagues
From thence to the north-point of Humber n. & n & by weſt	7 leagues
From the north-point of the Humber to Flambroug-head n. n. w.	9 leagues
From the north-point of the Humber to the Teſſel, eaſt and by ſouth and eaſt ſoutheaſt	55 leagues
From Flambroug-head to Fyley n. w. & by weſt & w. n. w.	3 leagues
From Fyley to Scharbroug n. w. & by weſt & n. w.	2 leagues
From Scharbroug to Widbye n. w.	5 leagues
From Whidbye to Teeſe, the courſe is firſt w. n. w. and afterwards weſt and by north	7 leagues
From the Teeſe to Tynmouth n. n. w.	8 or 9 leagues
From Whidbye to Tinmouth, the courſe is n. w. & ſ. e.	16 leagues
From Tinmouth to the Cocket Iſland n. n. w.	8 or 9 leagues.

Heights.

The north-point of the Humber of Hull in	53 degrees 35 minutes
Flambroug-head lyeth in	54 degrees 5 minutes
Scharbroug in	54 degrees 12 minutes
Tynmouth or the River of Newcaſtle in	55 degrees 10 minutes.

How theſe Lands doe ſhew themſelves at Sea.



Thus ſheweth the land betwixt the Trees and Flambrough head when you ſayle alongſt by it.



Thus ſheweth the land betwixt Tinmouth & the hills of Huntleyfoot & Redcliffe, to the ſouthwards of the Teeſe, when you ſayle alongſt by it.



Thus ſheweth the land betwixt Tinmouth and Cocket Iſland.

The twelfth Demonſtration.

IN WHICH

The Eaſt ſide of Scotland, is shewed, from the Iſland Cocket and Orcaneis.

Staples

FRom the Cocket Iſlands to the Staples the courſe is north northweſt and north & by weſt 8 or 9 leagues. The Staples, they are hig Iſlands & rocks right to the eaſtwards of Bambrough, lying at leaſt 3 leagues from the land northeaſt into Sea, a little to the northwards of them lyeth the Holie Iſland. To the ſouthwards or the weſtwards of the Holie Iſland is a baye where you may lye landlockt almoſt for al windes, againſt the Caſtle is the beſt roade: you may alſo runn in there from the ſouthwards, through betwixt the Staples and the maine land.

Holy Iſland.

Betwixt the Staples and Holy Iſland lye 2 ſuncken roks, which at low water come verie neare even with the water, the weſtermoſt toward the Holy Iſland, is called the Gold ſtone, the eaſtermoſt by the ſtaples, is called the Ploug. For to avoyd them, when you will ſayle through betwixt the Staples and the Holy Iſland, whether you come from the ſouthwards or the northwards, then bringh the ſteeple of Teuſtenbroug over the Caſtle of Bambroug & keepe them ſo ſtandingh, and then you ſhall run through betwixt them both, this cannell lyeth ſo through northeaſt and ſouthweſt. From the outtermoſt end of the Staples to S. Abbenſhead, the courſe is northweſt 8 or 9 leagues.

Gold ſtone.
Plough.

S. Abbens-head.

From Holy Iſland to S. Abbenſhead it is north northweſt 7 or 8 leagues.

To the northwards of S. Abbenſhead men doe runne in unto Lieth and to Edenbrough in Scotland.

The Bas

S. Abbenſhead and the Iſland the Bas lye eaſt and weſt four leagues aſunder. The Iſland May and S. Abbenſhead northweſt and ſoutheaſt 4 great leagues. May and Bas lye one from the other ſouthweſt and by weſt and northeaſt & by eaſt 3 leagues and a halfe. The Bas is a high round Rok cleane round about, which you may ſayle alongſt by on both ſides. Betwixt the rock and the ſouth ſhoare it is 13 and 12 fathem depe, but the common faire way is alongſt to the northwards of it. Betweene S. Abbenſhead and the Bas it is moſt part a cleane Coaſt, but without anchor ground. The Iſland May is greater then the Bas, and alſo cleane round about, except on the eaſt ſide, there it is foule.

Iſland May.

From S. Abbenſhead alongſt to the northweſt of the Bas, the courſe is weſt and by north, and weſt northweſt 4 leagues, and from by north, the Bas to the Iſland Inckieth weſt and weſt and by north about 5 leagues. Betweene the Bas and Inchkieth by the ſouth ſhoare lye many Rockes, little Iſlands and foulne grounds, where at divers places is road, but are to be uſed, but by them which are there verie well acquanted. Inchkieth & the Iſland May lye ſouthweſt and by weſt and northeaſt and by eaſt 7 great leagues aſunder. Inchkieth is ſomewhat a long ſmall Iſland, a league to the northwards of it lyeth an out point on the north coaſt called Kingorneſſe, before it and about it lie ſome little Roks, under water, but a little to the eaſtwards, of the eaſtwards of the point is a good anchor ground and road for weſterly winds. Betweene that point and the Iſland May, or the point of Fifsnes on the north ſhoare lye divers little Havens, where of ſome of them doe alſo yeeld out coales, but are little or nothing uſed by the Hollanders, on both ſides of Inchkith is good ground, and good lying as wel for weſter, as eaſterly winds.

Inch-kieth.

Kingor neſſe.

From Inchkieth to Lieth it is ſoutheaſt a league. Before Lieth Lieth about halfe an Engliſh mile from the ſhoare lyeth a Rock upon which ſtandeth a Maſt (with a croſſe or ſome other thing of wood upon the top of it) for a beakon. At hig water the ſea floweth over it, & at low water it falleth dry. With a ſpring tyde at low water men may go on foot to it. From the eaſt ſide of that rock lyeth of a Riffe almoſt unto Inchkieth. You may alſo run through to the ſouthwards of Inchkieth betwixt that foreſaid riffe and the ſouth ſhoare, but is not to be done, but by them which are there exceedingh well acquainted: There is altogether full of Rockes & foule grounds. When as you ſaile in to the northwards of Inchkieth you muſt leave the foreſaid Maſt on the larboard ſide, and run about to the northwards of it, and then towards the ſouth ſhoare, and anchor about halfe an Engliſh mile by weſt Lieth, and alſo halfe an Engliſh mile from the ſhoare, in 6, 7 or 8 fathom. Lieth is the Haven of Edenbroug, a tyde Haven which fall dry at low water.

Queenes Ferrie.

From Lieth to Quenes Ferrie there lye on both ſides many Rockes, ſome above and ſome under water. In the narrow before Queenes Ferrie lyeth a little Iſland called Inchgarve which you muſt runne alongſt to the northwards of, on the ſouth ſide it is with a ſtone bancke (where men may goe over at low water) faſt to the maine land, alongſt to the northwards of it, it is cleane and deepe. Within that little Iſland lye Caryn and other places more where men doe lade Coales.

Under the eaſt ſide of the point to the northwardes of Queenes Ferrie is good road in 2, 3 or 4 fathom, according as you lye farre from the ſhoare.

Fifsnes Dondee.

A league north from the Iſland May lyeth the point of Fifsnes, lying from S. Abbenſhead northweſt & by north 4 great leagues. From thence to Dondee it is north northweſt 5 leagues. Dondee is a good Haven wich goeth in betwixt 2 higlands, being with men doe anchor before the Towne. Farther in upon the Rivier lyeth another Towne called St. Johns, which you may goe up to at high water.

S. John dree.

Betweene the poynt of Fifsnes and Dondee lyeth alſo the Baye of St. Andrewes, there is all over good anchor ground

De Cuſten van

SCHOTLAN

met de Eylanden van Orcaneſſe ; van 't Eylnd Cok tot I. Sande.

't Amſterdam.

By Iacob Theuniſz. op 't water in de Lootsman.

SCHOTTE

Koryn

Queens feer

Ederburgh

S. Ians

Liet oſſe Seetyn

I. Heinkieff

Caſtel

Donde

Brought

S. Andreas

Aberr

Monros

Albrst

Northeske

Steenhoofd

Bas

I. May

't Schaep

Steenhoofd

De Aarde

Gelsevck

Barnyck

Dunfarbary

Bamburgh

t'Heylgh eylant

Goodfacer

Plegh

Stapele

De Schaſſen

Coket oſte Cogget eylant

Duytſche mylen 15 in een graet

Spaenſche mylen 17½ in een graet

Eng. en Fra. mylen 20 in een graet

C. Strahat
I. S. Martin
I. Hoyland
de Eylanden van Orcades
A. Ede
Faro
Westmeie
Ways Ithay
I. Ronse
I. Comet
Plata
Darson
Orcamse
Caterese
Denet
Olde wyck
Nesshead
Abergil
Dunbar
Dunglas
Pitlessie
Dundee
Lawernes
Rosse
D. Brook
Caithnes
Vmsse
Cde Hobrant
Noyme
D.
Fenderne
Hoeck van Elgin
Fulane
Spey fl.
Aberdin
Bamf
Stones
Doulem
Out Aberdin
Ethan
Fuirne
Tyfe
Boekercse
Spylwer
Beeckenes
Ratterburg
15

ground. Fore great leagues north & by eaſt from the point of Fifsnes, and n. e. from St. Andrewes lyeth a great Rock called Inchkap, which the ſea floweth over at hig water, & at low water it fallet ſo dry, that the Fiſhermen goe upon it.

Inchkap.

Monroſſe.

Seven leagues to the nordwards of Dondee lyeth Monroſſe, a good haven. Firſt you muſt ſaile in there amidſt the channell, and edge up to the northwards, and anchor before the Towne.

Over againſt Monroſſe lye three hommoks, which ſhote out from the other land, bring the middlemoſt & the houſes upon the ſtrant together, then ſhal you find the midle of the fareway, on bothſides of the havens mouth lyet a blind cliff.

Redhead.

Betwixt Dondee & Monroſſe lyeth an out point called Redhead, about a great league to the ſoutwards of Monros, there ſtandeth a hig Tower upon the land, called Abrot.

Stone-bay.

From Monroſſe to Stone-baye or de Torre the courſe is n. e. and by north 4 leagues. This is a deepe Bay & a good haven for thoſe that are bound to the ſouthwards, where men may lye landlockt with many ſhips.

Aberdyn

Three leagues to the northwards of it lyeth Aberdyn, in this havens mouth it is 3 fathom deep. The weſt-poind is ſomewhat foule, therefore you muſt run in by the eaſt land, untill you come within the haven, and anchor before the Towne in 4 or 5 fatum. Up to the nortwards is a great Bay but is ſhoale on both ſides, there goeth troug a litle Creeke towards old Aberdyn, which is an old ruinous Towne.

Boeckenes.

From Aberdyn to Boeckenes this courſe is n. n. e. 12 or 13 leagues. Betwixt them both lyeth a tyde haven. Boeckenes is a hig hill and lyeth upon the ſouthſide of the point.

Spy.

To the northwards of Boeckenes lyeth a Bay as a Haven called Spy or Spilart, and rigt before the ſhoare lyeth a ſand called Ruttenbrug, which you muſt take great care thereof as you come from the northwards, from thence the land lyet in weſt & w. ſ. w. unto the haven of Roſſe or Luvernes.

C. Tarbat.

To the northwards of Roſſe lyeth an out point, called Cape Tarbate, rigt in the Bottome of the Baye, betwixt Catenes and Boeckenes, diſtandeth from Boeckenes about 19 or 20 leagues. In this bay are manie haven & ſounds, which are deep enoug for to come into with great ſhips. It is from thence to Catenes 14 leagues n. e. and by north. Catenes lyeth from Boeckenes n. w. & n. w. and by north 20, 21 or 22 leagues. From Boeckenes unto the outermoſt Orckanes it is north and by weſt, and n. n. w. 32 or 33 leagues.

The Orkeneis are 31 Iſlands in number, firiſt Wayets or Elhoy, which lyeth next to Scotland, 5 leagues about the point. About n. n. e. of from the point of Catenes lye two little Iſlands Pito and Pichlandſcare, there you may runne troug to the weſtwards betwixt Elhoy and Scotland.

To the northwards of them lyeth an Iſland called Heynda, with an other Iſland called Platta, to the northwards of Platta lyeth Mayland or Ponoma. On the north-ſide of this great Iſland are all the havens where the Ships come to.

Upon the eaſtſide of this great Iſland lyeth another Iland called Kabunſa, to the northwards of it lyeth another Iland at the northeaſt point of the great Iſland you may alſo run troug there thwards Papeweſter, and leave Sanda lying on the ſtarboard ſide.

Cloſe to Papeweſter lyeth Fara, to the ſouthwards of it is Sirza. To the eaſtwards of Sirza & Fara lye two Iſlands, in the middeſt of all theſe Iſlands, called Feda & Chapnoza.

Sanda lyeth to the northwards of all theſe Iſlands, but Papa and Stronza lye to the ſouthwards of Sanda.

To the eaſt-wards of Stronſa lyeth an Iſland called Cuiſtella, that is the eaſtermoſt Iſland of all, the northermoſt is called Ronalze or Northernaſa.

Elven or 12 leagues n. w. from the great Iſland lye two rocks, the one under water and the other above water, he that commet from the weſtwards muſt take heede of them.

Of the Tydes & Courſes of the Streames.

On theſe Coaſts betwixt Tinmouth and S. Abbens-head a ſ. w. and n. e. Moone maketh hig water.

At Lieth in the Haven a ſ. w. and by weſt Moone maket ful Sea.

The floud falleth alongſt the Coaſt ſ. ſ. e. and ebbe n. n weſt.

A Orcaneſſe and Boeckenes a ſ. w. and n. e. Moon maketh hig water.

The floudes come about from behind Scotland from the weſtwards throug betwixt Fairehill and Orcaneſſe, and make thereabout full Sea a ſ. w. and northeaſt Moon.

From Boeckeneſſe, the floud falled ſouth along the Coaſt towards Lieth, and the ebb north to the contraire.

In this fareway it is deep 40, 50 and 60 fatum, in 45 and 50 fatum you may ſee the land. In this fareway in the Summer the firſt Herrings are caugt.

Courſes and Diſtances.

From Tynmouth to Staples north and by weſt	16 leagues
From Staples to Barwicke w. n. w.	3 leagues
From Barwike to S. Abbens-head n. n. w.	5 leagues
From the Staples to S. Abbens-head n. w.	8 or 9 leagues
From S. Abbens-head to the Bas weſt	4 leagues
From the Bas to Inkieth weſt and weſt and by north	5 leagues
From S. Abbens-head to the Iſland May n. w.	3 leagues
From S. Abbens-head to Fifsnes n. w. and by n.	4 great leagues
From Fifsnes to Dondee n. n. w.	5 leagues
From Tinmouth to Schuytenes n. e.	99 leagues
From Tinmouth to the Naze n. e. and by eaſt eaſterly	103 leagues
From Tinmouth to the Scawe e. n. e.	103 leagues
From Tinmouth to Holyland eaſt by ſouth eaſterly	106 leagues
From Fifsnes to Stone-Bay north and by eaſt	16 leagues
From Redhead to Monros n. w.	4 leagues
From Monros to Stone-Bay n. e. and by north	5 leagues
From Stone-Bay to Boeckenes n. n. e. ſomwhat northerly	16 leagues
From Aberdyne to Boeckenes n. n. e.	12 leagues
From Boeckenes to Phyloort or Spyloort n. n. w.	3 leagues
From Phyloort to the point of Eglyn weſt	10 leagues
From the point of Eglyn to the Haven of Roſſe or Leuvernes weſt and by ſouth ſomewhat ſoutherly	7 leagues
From the Cape de Terbate to Catenes n. e. and by north	14 leagues
From Catenes to Ilhoy w. n. w.	5 leagues
From Boeckenes to Catenes n. w. and n. w. and by north	22 leagues
From Boeckenes to Orcaneis north and by weſt and n. n. w.	26 leagues
From Boeckenes to Hanglip, or the ſouth-end of Hitland north ſomewhat eaſterly	50 leagues
From Boeckenes to Schuytenes eaſt and by north ſomewhat northerly	72 leagues
From Boeckenes to the Naze eaſt ſomewhat ſoutherly	88 or 90 leagues
From Boeckenes to Boevenbergh in Jutland eaſt and by ſouth	106 leagues
From Boeckenes to Holyland ſ. e. and by eaſt	128 leagues
From Boeckenes to the Teſſel ſ. e. ſoutherly	143 leagues
From Boeckenes to the Holmes before Yarmouth ſ. ſ. e.	108 leagues
From Aberdyne to the Holmes before Yarmouth ſ. e. and by ſouth ſomewhat ſoutherly.	100 leagues.

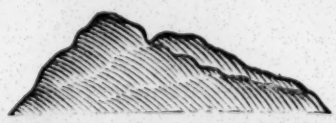
Heights.

S. Abbenshead in Scotland in	56 degr. 12 min.
Boeckenes lyeth in the height of	57 degr. 55 min.
Catenes in	58 degr. 40 min.
The greateſt or the outermoſt Iſland of the Orkeneis in	56 degr. 8 min.

How theſe Lands doe ſhew them ſelves at Sea.



Thus ſheweth Boeckenes, when you ſaile alongſt by it.



In this form ſheweth the land Catenes, when you ſaile alongſt by it.



Thus ſheweth the n. e. point of Orkenes, when you ſaile alongſt by it.



Thus ſheweth the land of Scotland to the northwards of Aberdyne, when you ſaile alongſt by it two leagues from the land.

The thirteenth Demonstration.

Where in are set forth

The Coast of Fairehil, Hitland and the Islands there abouts as also the Islands of Fero & some Islands behind the northwest Corner of Scotland.

Fayre-hill. THE Island Fairehille lyeth from the east point of the Orcanis northeast & from Boeckenesse north and by west, about 37 leagues.

On the west side of Fairehill is at some places foule ground, but upon the southeast side is good anchor ground, there you may anchor every where, but there stretcheth a riffe on the east side of the shoare of southeast 2 leagues in to sea.

Fulo. Fulo lyeth from Fairehill northwest and by north tenne leagues, betwixt them both lyeth the southermost point of Hitland, lying from Fairehill north northeast, 7 or 8 leag. and from Fulo east and by south 4 leagues.

The s. w. coast of Hitland, (to wit from the southermost point to the n. w. point) lyeth n. w. & by north 8 or 9 leag. On the same s. w. side, over against the Island Fulo lyeth a Sandbay, where men may anchor, but on the east side of this Bay, it is somewhat soule. From that n.w. or west point of to the north-end, the land of Hitland lyeth n. e. and by north and s. w. and by south 20 or 21 leagues.

S. Magnus. Two leagues to the northwards of the foresaid west point lieth the haven of S. Magnus, which is a broad Sound, within it is good anchor ground in 16 or 17 fathom depth, according as you shall be farre within the land. On the north side lyeth a high rocke, where you must run in the southwards of. And on the south side lyeth 2 or 3 roks, which you must leave on the starboard side, when you sayle in there.

Even to the eastwards about the south point of Hitland, lyeth a faire Sand-bay, where you may anchor in 12 or 13 fathom, from thence to Hanglip, the course is northeast somewhat easterly 8 or 9 leagues.

Hanglip. Hambrough haven. Betwixt Hanglip and the south poynt lyeth an Island, which you may sayle about on both sides, within it lyeth Hambrough Haven, or the Scottish Haven, which is a lade place for the Hamburger and Scots. This haven is also called Bremer Haven. There lyeth also a high steepe point to the southwards of Hanglip, to the southwards of

Broad-sound. it men doe runne into Broad-sound, the chiefest Haven of all Hitland, which is deepe and hath cleane ground, there men doe lye landlockt for all winds.

From the Broad Sound lyeth a Sound in alongst to the northwards, throug the land, which commet out againe into the sound to the northwards, and so maketh an Island off the land where upon the hig hill Hanglip lyeth. When as you will sayle in there from the northwards, that is to the nortwards of Hanglip, you must runne in nearest by the sout shoare, & edge to it betimes. In this channel betwixt both lands lye two Islands or rocks, the greatest lyet nearest the north shoare, & the smallest nearest the sout shoare, betwixt them both also a sunken rocke, which at low water is uncovered, and at high water you may know it by the breaking upon it. When as you will sayle in here, you must leave the foresayd greatest Rocke, with the suncken rock, an the starboard side, and the smallest Rock on the larboard side, there is upon the shoalest 3 fathom and a halfe water.

Within this haven lye also 2 havens at the north-point, which lye into the land, where is goo lying.

When as you wil sayle from this foresaid haven throug within unto the Broad-sound, you shall meet, scarce halfe wayes with a rock, from which lyeth off a riffe towards the west shoare thwart of it you must runne close alongst by the west shoare, to avoyd that riffe.

To the northwards of Hanglip, the land of Hitland lyeth north and by east and n. n. e. at least north and at some places you may saile in throug Hitland, especially to the northwards of Waelsoeu, where a faire broad Sud lyeth n. w. throug there is good anchor ground to finde at some places, for these that are there acquainted. From Hanglip to the northeast-point of Hitland, the course is n. n. e. 10 leagues,

Out-schares. there lye some outrocks called the Outschares. From thence alongst to the north-point of Hitland, the course is north about 4 leagues.

A little about the east-point goet in a faire haven, called Bloem-sound, lying in s. w. On the west-side lyeth a long rock, you must saile into the eastwards of it, and a anchor a little within the haven, it is there within al cleane sand ground, & lying. Bloem-sound lyeth in first (as hath been-said) s. s. w. afterwards south & south & by east on both sides is good anchor ground, there you may saile altogether throug, and come out againe throug Jelle-sound into sea, about the Island Fero.

Bloem-sound.

The greatest & chiefest Islands of Fero at 12 in number, as Suydro, Sando, Moggenes, Wage, Stromo, Ostro, Calso, Cuno, Bordo, Wydro, Swyno & Fulo.

Names of the Islands of Fero.

The litle Islands of Fero are 10, as Litledymen, Stoerdymen, Schuyvo, Dalsfles, Hesden, Trallo, Colster, Moggensholme, the Monk & the Bishop. Besides these there are yet some rocks & little Islands, to 7 or 8 in number.

Suydro. The southermost great Island called Suydro, lyeth most s. e. & n. w. about 7 or 8 leagues. At the southeast-end of this Island lyeth a hig rock, called the Monk, or Sambie,

Monck Samby. after the name of the first or southermost haven in Suydro. Betwixt the Monck & the southeast-end of the Island Suydro, is a race or Well, which men must avoyd especially with spring tydes.

Upon the west-side of the Island Suydro are no havens for to save any shippes in, but it is altogether hig steepe land. On the north-side are maine havens, where men may saile into and save ships, as Sommersound or Hest, Hofwycke, Vroble, Quaelbie or Ranie, all broad sounds or havens, a contrie man or Pilot cauering you in there every where to your desire.

Mog-genes holm. From the northwest-end of Suydro to Moggensholme, the westermost and outermost Island of Fero, the course n. w. and by north, and n. n. w. about 8 leagues.

Mog-nes. At the east-end of Moggonesholme lyeth Moggenes, to the eastwards of it lyeth the Island Wage, and to the eastwards of Wage goeth in a faire Sound from the southwards

Wage. of from the Island Sando about Hesten and the Island Colster, for you may run in about these Islands east-side, & so come into Wage. In the middest of the Sound of Wage goeth upon a haven to the eastwards into the great Island Stromo, there in you may anchor in 10 or 12 fathom, but the Sound is at least 20 fathom deep.

Som-sound. Moggenes and the northeast-end of Fero lye e. n. e. or a little more northerly, & s. s. w. about 15 leagues asunder. Betwixt them both lye 10 Islands, and betwixt each Island, is a faire broade and deep Sound where of fourth off from Moggenes is called Somsound. All these Sounds lye most n. n. w. and s. s. e. throug the land, & upon all these Islands stand Churches, except upon Ostra, which never the lesse is a great Island.

Scal-head. Little Dymen Stoer Dymen From the southeast-end of Suydro to Scalhead, or the southeast-end of the Island Sando, the course is north & by west about 5 leagues. Betwixt Suydro & Sando lye the litle Islands, Litle Dymen, Stoer Dymen, Scavo & Dalsfles.

From Schalhead untill within the Island Mulso (lying before Stromo) the course is north and by west foure leagues, there you may every where anchor, where you will in 20, 30 or 40 fathom. If any man comming in out of the sea, desireth to see a good road or haven under the Islands off Fero, he shall keepe that middlemost great Island Stromo northwest and northwest and by west from him, and then hee shall see upon the middest of the Island Stromo a high steepe hill called Schellinck, which he must sayle right in with, and so he shall meere with that foresaid Island Mulso, a low Island, which you may saile about on both sides, but it is best for to runne in there at the south, under this Island is all over good anchor ground. Right over against this Island, on the great Island, lyeth Torshaven, the chiefest haven of Fero, where al the trade of Merchandize is.

From

Eylanden van

HIT LANT

ofte Schetlant. Fayer hil. en Fulo.

't Amsterdam

By Iacob Theunisz op twater inde Loolsman.

Fulo

Schetlant

Noorthoec Loch

S. Ulayne sond

S. Ulayne

EYLANDEN van H

ofte SCHETLA

De Zuythoeck

Strandeling

Slot Zuythorpe

Peerle Eyl.

Sumburgerhooft

Schelshorre

Lamberwerthorre

Bressay

Lerwick

Scholp

Commex Eyl

Arentsburg

Hangst

Fayer hill

Eylanden van HEBRIDES

gelegen achter de noordwest-hoeck van Schotlandt

S. Kilda

Hun

Iuist

Leuis

S. Pulvicus

Skye

Duytsche mylen 15 in een graet

Spaensche mylen 17½ in een graet

Eng. en Fra. mylen 20 in een graet

HIT LANDT.

LAN DT.

Laxsort.

Gen Waert is gevaerlyck

De Blaeuwe bergen

Iello

Bloemen sondt

Olsse

Onst

Ellis sont

Hasskens

Hasskens sondt

Ulens hav

Fetlo

Ulons sont

Schoolers Eyl

Swaert hoeck

Valsgerd

't scheren

Dutsche mylen 15 in een graet

Spaensche mylen 17½ in een graet

Eng. en Fra. mylen 20 in een graet

Eylanden van FERO oste Farre

Moggenshelm

WIGGENNIS

WAGE

STROMO

SANDO

Wilderas

Sakkoest

Stoxenhaven

Dalsflee

Litle domen

De Hoom Sumbr

Mukkel wage

Oostervaes

Sumsont

ALSO

Ruderas

Bordoyreck

BORDO

WIDRO

SWINO

FVLO

In dese voort comen veel walvisen

De Bisschop Farro

Duytsche mylen 15 in een graet

Spaensche mylen 17½ in een graet

Eng. en Fra. mylen 20 in een graet

Torſhaven. Fulo. The Biſhop.

From Torshaven or the Iſland Mulſo to the northeaſt-end of Fero the courſe is n. e. & northeaſt and by eaſt about 12 or 13 leagues, betwixt them both lye 7 Iſlands, & betwixt each Iſland (as hath been ſayd) goeth a broad Sound throug the land: lying throug about in w. n. w. and by north, and n. n. w. The north-end of Fero is about 4 leagues broad, and lyeth n. w. and ſ. e. and is called Fulo, thwart of it lyeth the Biſhop.

He that deſireth to ſaile off from Mulſo into Somſound, let hem goe on n. e. and by north 3 leagues unto the point of Bordenes, then up n. w. off from Bordenes, & then he ſhall eſpie a Church upon the Iſland Calſo, which he muſt leave on the ſtarboard-ſide, and goe in along w. n. w. until he come into the Bight off the Iſland Oſtro, and anchor there in 17 or 18 fathom.

Theſe Iſlands of Fero lye in a triangle, it is from the ſoutheaſt-end off Suydro to Fulo, or the north-end off Fero n. n. e. and ſ. ſ. w. 12 leagues aſunder.

From Scotland weſtwards and to the northwards of Ireland, lye many Iſlands, where of we ſhall here deſcribe ſome, with ſo much perfection, as there of is yet knowne.

Names of the Iſlands.

The names of the principall Iſlands lying there are theſe: Areu, Ila, Jona, Mulla, Bragedull, Hun, Mun, Lewiis, S. Patricius, S. Maria, S. Colane, S. Petrous, Epth & S. Kilda, theſe are the greateſt. There are yet ſome ſmall Iſlands: As Rona, Gent, Trauta, Fladde, Grand Melul, Petit Melul, Stalpan, Cannay, Rum, Egge, Mule, Cutte, Carndenbroug, Gronſay, S. Karbo, Lismont, Swynoy, Machare, Gegay, Cary and Navarſay. All theſe Iſlands doe lye and belong under Scotland, and are thoſe which by the Coſmographers are called Inſulæ Hebrides.

Barra or Rona.

The Iſland Barre or Rona is the northermoſt Iſland lying behinde Scotland, and lyet from Fulo about w. ſ. w. 37 or 38 leagues, it lyet by 2 other little Iſlands about a greate league one from the other.

The Iſlands of Lewis lye from Rona ſ. w. diſtant 16 or 17 leagues, and from the north-end of Lewis to S. Kilda, it is ſ. w. & by weſt, 16 leagues.

On the eaſt-ſide of S. Kilda is a good roade for a weſt and n. w. winde. This Iſland lyeth by the other little Iſland where off the two are not very great, upon that which lyeth to the weſtwards you may ſee ſome houſes ſtand, and theſe two little Iſlands lye 10 leagues to the weſtwards of the great Iſland of Lewis. Upon the coaſt of Lewis lye alſo two rowes of great rocks, like as if they where little Iſlands, lying one from the other ſouth & north ſomewhat eaſterly about 7 or 8 leagues.

The ſouthermoſt lye by 3 little Iſlands, but the northermoſt lye by eigt ſmall little Iſlands or rocks.

The Iſland of Lewis is devided into many parts, the which men may ſaile throug at many and divers places. Lewis with the Iſlands belonging to it ly ſ. ſ. w. and ſouth and by weſt about 29 leagues.

But on the eaſt-ſide goeth a broade Sound throug of 5 or 6 leagues. Men ſail in cloſe by the Iſland of Lewis, about ſ. ſ. w. untill paſt the Iſland Cheut.

From thence the Sound lyet throug betwixt the great Iſland Bragadull & Lewis ſouth & ſouth & by weſt towards the weſt-end of Lewis, called the Epths, then you muſt leave Mulla and Ila, with divers many other Iſlands on the larboard-ſide.

Jona, Ila, Mulla and Bragadul are 4 of the greateſt Iſlands, which are lying on the weſt coaſt of Scotland, and lye cloſe by the mayn land, but there are many havens and Sounds, ſo that there you may ſayle in and about them every where.

At the n. w. point of Ireland lye alſo ſome Iſlands, which you may ſaile throug and round about them all.

Betwixt Rona and Orkaneys lye alſo ſome Iſlands, which alſo you may ſaile throug betwixt and round about.

He that ſailet with theſe Iſlands muſt be very carefull and circumſpect, for the moſt part of them are inhabited by wild and ſavage peole.

In Lewis and the Iſlands there about a ſ. w. and n. e. Moone maket the higheſt water ank likewiſe alſo without the north-point of Scotland.

Of the Tydes and Courſes of the Streamus.

In Hitland within the havens and Sounds a ſ. ſ. w. and n. n. e. Moon maketh full Sea. The flood runneth there to the eaſtwards, and the ebbe to the weſtward, eſpecially at the ſouth-end and north-end of Hitland, and ſo fall thwart throug the Sounds and Havens.

In the Iſland of Fero north and ſouth Moon maketh the higheſt water.

Under the Iſlands of Fero goe very hard tydes, with great turnings, the flood commeth there out of the weſt and w. n. w. the ebbe out of the eaſt & e. ſ. e. and fall ſo alongſt throug the Iſlands, there you muſt reckon your tides there after, when you will ſaile from the one Iſland to the other, there are two wels or Maelſtreames, the one at the ſouth-end of Suydry, and the other a league with in Scalhead at Quaelnes.

Although the tides doe run ſo ſtrong throug theſe Iſlands yet nevertheles it floweth not there foure foot up and downe.

How theſe Lands doe lye one from the other, and from the other Lands.

From Fairehill to the northeaſt-point of Orcaneis ſ. w.	9 or 10 leagues
From Fairehill to the ſouth-end of Hitland ſ. ſ. w. and ſouth and by weſt	7 or 8 leagues
From the ſouth-end of Hitland to the Iſland Rona w. ſ. w.	46 leagues
From the north-end of Hitland to the roks of Rocol w. ſ. w.	127 or 128 lea.
From the ſouth-end of Hitland to Fero w. n. w. & n. w. & by w.	61 leagues
From the north-end of Hitland to the ſouth-end of Fero weſt and weſt and by north	58 leagues
From Hitland to the eaſt-point of Iſland, the courſe is n. w. & by weſt about	130 leagues
From the north-end of Hitland to Gryp n. e. and by eaſt the north-end of	115 leagues
From Hitland to Stad e. n. e.	66 leagues
From Fero to Rona, the courſe is ſouth and by eaſt	45 or 46 leagues
From the ſouth-end of Fero to Rokol ſ. w. weſterly	85 leagues
From Rona Lewis, the courſe is ſ. w.	16 leagues
From the north-end of Lewis to S. Kilda ſ. w.	16 leagues
From the ſouth-end of Lewis to the northweſt-point of Ireland, the courſe is ſ. w. about	27 leagues
From S. Kilda to the north-end of Hitland n. e. & by eaſt	39 leagues.

Of the Heights of theſe Lands.

The ſouth-end of Hitland lyeth in	59 degrees 48 minuten
The north-end of Hitland lyeth in	60 degrees 50 minuten
The ſouth-end of Fero lyeth in	61 degrees 15 minuten
The north-end in	62 degrees 20 minuten
The Iſlands of Rona lyeth in	58 degrees 46 minuten
The north-end of Lewis lyeth in	58 degrees 18 minuten
The Rock Rokol lyeth in	58 degrees 20 minuten
The northweſt-point of Scotland lyeth in	58 degrees 30 minuten.

How theſe Lands doe ſhew them ſelves at Sea.



When Fairehill is weſt and ſouth 3 or 4 leagues from you, it ſhewet thus.



When Fairehill is weſt from you, ſee Hitland n. w. from you, it ſhewet thus.



When Fairehill is ſ. e. and ſ. e. and by eaſt 3 or 4 leagues from you, it ſheweth thus.



Fairehill being 5 leagues ſ. w. & by weſt from you, ſhewet thus.

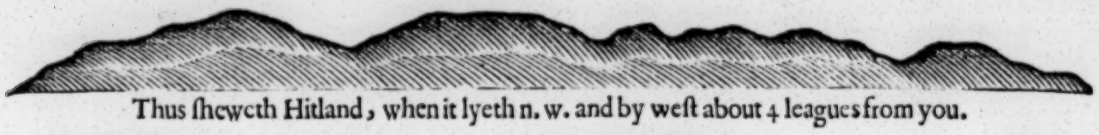
When Fairehills is n. w. and n. w. & by w. 4 leagues, it ſheweth thus.

When Fulo is n. w. from you, ſo far that you may even ſee it out of the top, it ſheweth thus.



When the ſoutheaſt-end of Hitland is w. n. w. from you, then ſheweth the land as in theſe three Figures the A A, B B one to the other.

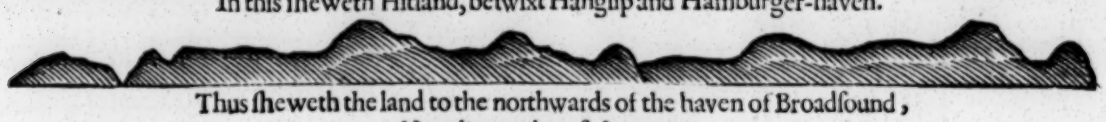




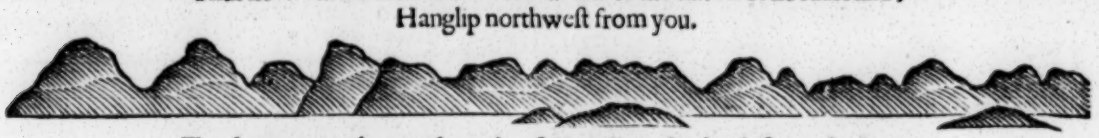
Thus ſheweth Hitland, when it lyeth n. w. and by weſt about 4 leagues from you.



In this ſheweth Hitland, betwixt Hanglip and Hamburger-haven.



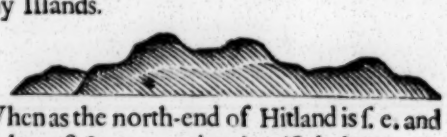
Thus ſheweth the land to the northwards of the haven of Broadſound, Hanglip northweſt from you.



Five leagues to the northwards of Hanglip, the land ſheweth thus, being about a league off from it, Hitland lyeth in there with a great bight, with many Illands.



Thus ſheweth Hanglip, when it is n. w. from you 8 leagues.



When as the north-end of Hitland is ſ. e. and by eaſt from you, then it a riſeth thus.



When S. Kilduyen is ſ.w. about 5 leagues from you, it ſheweth thus.



When the Iſland Lewis lyeth eaſt from you, then it riſeth thus, and then you are without S. Kilda.



This Iſland lyet alſo upon the coaſt of Lewis.



S. Kilda 6 leagues ſ. w. from you, it ſheweth thus.



S. Kilda n. e from you 4 leagues, it ſheweth thus.



S. Kilda ſ. w. and by weſt 4 leagues from you, it ſheweth thus.



Fulo 4 leagues from you, it ſheweth thus.



This Iſland w. ſ. w. from Scotland.



Thus ſheweth the Iſlands Barre or Rona, when it is 4 leagues ſ. ſ. e. from you.



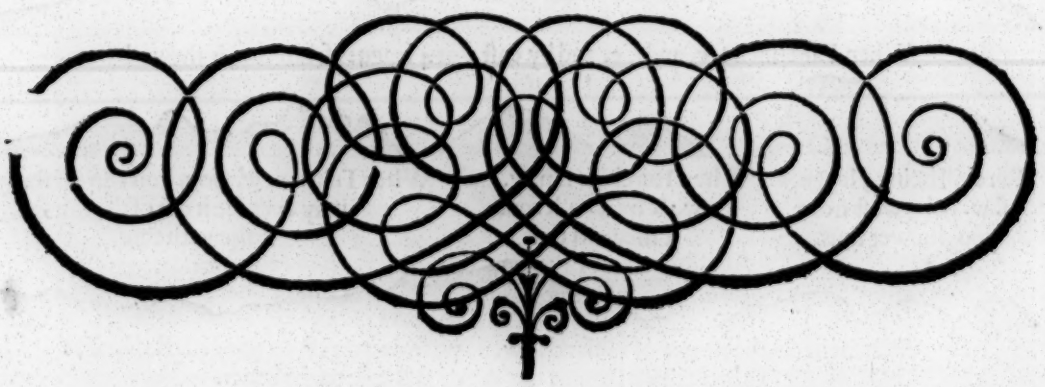
This land lyeth on the weſt-point of Scotland towards Locherme.



The ſouth-point of Fero w. n. w. from you, 5 leagues, it ſheweth thus.



The ſouth-point of Fero n. w. 6 leagues from you, it ſheweth thus.



PASCAART

van de Zee-custen van

Ruslandt, Laplandt, Finmarcken

Spitsbergen en Nova-zembla

't Amsterdam.

By Theunis Iacobsz op 't water

inde Lootsman.

Op nieus oversien en verbetert.

SPITSB ER GEN.

Wyde Ians water

Noort Boeck ofte Vogel Boeck

't Voorlandt

Zuydhoec of Kymas

Clock bay

Schoon haven

Noorn sond

C. de Kyck uyt, Whales Backs

Kalvemaens eyl.

Noorpen Eylandt

Beeren Eylandt

Jan Mayen Eylandt

Beeren berch

Bonen

Iuans

Westroot

Lossoot

Madstroom

Werey

Rust

Trien Ooch

Heyligelant

Heyligelanders

Euvrilandt

Swarteness

Dronten

LIMARCKEN

CORELEN

Duytsche mylen 15 in een graet

Spaensche mylen 17½ in een graet

Eng. en Fran. mylen 20 in een graet

Kola

Kandalex

Warsiga

Archangel

Admiralityts Eylant

C. Plancio

Loms bay

S. Norgon

Lanoomes alias Staten hoeck

Dan Cerston hoeck

Cont hoeck

Swarte Eylandt

Cassimsorck

Tamsons bay

S. Jürgen

Street van Nassau

Nieu Hollant

I. Mauritius

I. Orangien

I. Cologieve

Corona

Colcova

Kemlebo

Soloyski

Moritza

Godzyn

Duina R.

S. Nicolas

C. Donese

Onega R.

Cranopol

Lampas

Kola

Embar

Pitzingamon

Kegor

Laus

Kolla

Ombay

Reen Eyl

Soutkete

Soutnes

Swartenes

Kletna

Lambuscha

Pitzora

Kolguyef

Waigats

Nova Zemla

Noord caap

Noord hyn

Yaikorf

Cretsfiord

Wardhuys

Domesnes

Swanen

Vischers Eylant

Liefde

Cerssen

3. Cousins

Gouden hoeck

Eylandt

Skapper

Eylandt van Swetnes

Swetnes

R. van Lockena

C. Orlowetz

3. Eylanden

R. Ponoy

Vischers Eylt

Eylandt van Pedesemska

Duina R.

Wardhuys

Vischers Eylt

Eylandt van Pedesemska

de Cyp... paan.

FINMAR C

tusschen Dronte... T...

't Amst... dam

By Iacob Theuns... 't w...

Loo... an.

F I N M A

Stadwart

Malangar

I. Engelsdal

Swartz

Rotthalle

Tarck Valle

Rollen

Interm

Lenbyn

Osenfiorden

I. Ingnas

I. Lossoort

Duytsche mylen 15 in een graet

Spaensche mylen 17½ in een graet

Engelsche Fra. mylen 20 in een graet

MARCKEN

Dronten, Tromsondt.

Amstr[illegible]dam

[illegible]t-water inde

Loo[illegible]n.

R C K E N

Dronten

Vlie

Schongen

Zuiderdal

Oterop

Sabrin

Zuyderdiep

Noorderdiep

Noorderdal

Heilige land

Traen oogh

Maelstrom

Ruft

Werey

Nomen
alis
lands.

Rat.

Holy-
rod.
Trans-
ti.

Vero.
Lo-
ert.
Mael-
eatae.

The first Part of the New

Lightning Sea Columne,

OR

SEA MIRROUR.

The second BOOKE of the

EASTERNE NAVIGATION,

CONTAIGNING

The Descriptiõ of the Sea-Coasts of Norway, Finmarck, Lapland & the whole White Sea.

The first Demonstration,

Where in are seth forth

The Coasts of Norway, from Dronten to the Island Tromsound, as also John Mayes Island, and the New Found Land of Spitsburgh.

Nomen dals Ilands.

Rust.

Holy-land, Traen-och.

Wero. Lof-oert, Mael-reame.

FRom the Island Gryp to the Nomen-dals Islands, the course is n. e. 18 leagues, but from Gryp to the Island Rust, north and north and by east four and sixtie leagues. Betwixt them ly (besides the Nomen-dals Ilands) also the Islands Holyland, & Traenoch. Traenoch and Rust lye 13 leagues asunder. From Rust to Wero, the course is n. e. & by north 9 leagues, but to Loffoert n. n. e. 33 leagues. Betwixt Wero and Loffoert lyeth the Maelstreame, where you may sayle throug, but at still water. By the west-point of Loffoert you may runne in, and make roade under it. And also you may runne troug from thence within betwixt the Islands & the main land, all along unto the North-Cape.

Betwixt the Islands Westerholl, Sanien & Trom-sound, you may also runne in at divers places, and make road. Thwart of these Islands lye here and there in some places suncken rocks and foule grounds, a great league and more without the land. He that sayleth alongst this coast, may be carefull there of.

Sanien. Trom-sound.

Of the Tydes & Courses of the Streames about these foresayd Places.

On these coasts a s. s. w. & n. n. e. Moon maketh full Sea. The flood commeth there out of the n. w. and w. n. w. and falleth alongst Finmarck towards the North-Cape.

Courses and Distanses.

From Rust to Loffoert n. n. e. and n. e. and by north	33 leagues
From Loffoert to Sanien n. e. easterly	36 leagues
From Sanien to Suyro n. e. and by east	40 leagues.

Heights.

The Maelstream lyeth in about	68 degrees
The Islands Sanien in	70 degrees.

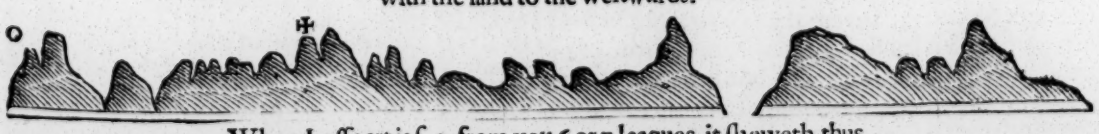
How these Lands doe shew them selves at Sea.



Rust east and by south from you sheweth thus.



When the east-end of Loffoert is s. e. and by east from you, it sheweth thus, with the land to the westwards.



When Loffoert is s. e. from you 6 or 7 leagues, it sheweth thus.

When



When Loffoert is e. ſ. e. from you, it ſheweth and the land betweene thus.



This belongeth to the former.



The eaſt-end of Weſterhol ſheweth thus, when as you ſaile alongſt by it, about 7 leagues from it.



Theſe two Figures belong at the Croſſe one to the other.



Thus ſheweth the land of Sanien, when the two hig hils upon the eaſt-end are ſ. e. & by ſouth, & the point, with the Clif ſouth & by weſt from you 4 leagues. When as the two foreſaid hig Hils upon the eaſt-end are ſ. w. from you, then they are rigt one in the other.

The ſecond Demonſtration,

Where in are ſeth forth

The Sea-Coaſts and Iſlands of Finmarcken, from Sanien to North-Kijn or North-Cape.

Surroy. FRom the Iſland Tromſound to Surroy, it is e. n. e. ſomewhat northerly 15 or 16 leagues. To the eaſtwards of the Iland Tromſount goet in the Tromſound betwixt the Iſland Fogelden and Skyfeu, as you ſaile in there you leave the Iſlands Loppen & Loppen-Kalf, lying on the larboard ſide without the oter Iſlands, whitin it are divers Iſlands, Bayes and Scunds, where you may ſaile in and ſeeke Road, as Oxefioert, Biurfioert and more other.

Fogelden. Skyrfeu Loppen and Loppen Kalf.

Betwixt Loppen & Surroy men doe ſail troug Suyerſound & Stiernerſound into the river of Altonbotten, and then betwixt them they leave on the ſtarboardſide Niusfioerd, Oxefioerd and Langefioerd. On the larboard ſide about by the weſtpoint of Suroy, on the land of Sury lyet a haven, where by is alſo a Fiſher village, both called Haeswyke, Suroy is about 10 leagues long, and lyeth on the off-ſide e. n. e.

Altonbotten.

Haeswyck.

Nine or 10 leagues to the eaſtwards of the Iſland Tromſound, about 3 leagues without the land w. n. w. 5 leagues from the weſtend of Surroy lyet a ſhoale of rock a litle under water. John Huygen of Linſchoten in this ſecont voiage to Nova Zembla, in the Yeare 1595 ſailed with his ſhip upon it in faire weather & ſmooth water, that the ſheating of his ſtemme was beaten of 2 ſhips; but after ſome beating the ſhip turnd of with the ſtrong current. It is to be througt that there lye more then men can ſeen, or as yet are diſcovered.

Showld

About 6 leagues eaſt & by north from the eaſtend of Suroy lyet the Iſland Ingen, betwixt them both lye alſo Reefholme and Ship-holme litle Iſlands, which you may ſaile abouth on both ſides, until under Ingen or Suroy.

Ingen. Reefsholm. Shipholm.

When as you come in betwixt Suroy & Ingen, there lyet thwart of from Suroy towards the other land, a good haven called Hamerfeeſt. A litle further in lye two hig litle Ilands, and over againſt them a road called Slechtnes. Betweene Hamerfeeſt & Slechtnes, before that you get Slechtenes, lyeth a Bay on the land of Suroy, where is good road in 25 or 30 fathom cloſe by the ſhoare. A litle paſt theſe Iſlands on the land of Suroy, over againſt the river of Alten, is a good road called Goeſhop being a fair ſand-bay.

Hamer feeſt. Slechtenes.

Goeſhop.

Betwheen Ingen and the North-Cape or the Iſland Maggereu lyeth Holmsbuy, an Iſland which you may ſaile round about, having on the northweſt ſide a Bay called Akefioerd, where men may make road for ſoutherly and eaſterly windes, on the ſouteaſt ſide is a Bay called Knaarwyke, where men may make road, and lye ſheltred for weſterly and northerly winds.

Holmsbuy. Akefioerd. Knaarwyke.

The Nort-Cape is the northermoſt point of the Iſland Maggereu, a litle to the weſtward of it lye the litle Iſlands of Stappen.

Nort-Cape. Stappen.

On the ſouth-ſide of Maggereu even about the eaſtpoint lyeth Keelwyck, a good haven. On the ſame ſouteaſt-ſide, by the ſouthermoſt point of Maggereu lyeth a litle Iſland called Altenſoleu, the ſound betwixt that litle Iſland & the land of Maggereu is called Maggereu-ſound, there is good road and ſhelter for almoſt winds: men may run in throug ſuyer-ſound to the weſtwards Iſlands to the ſouthwards of them, a long throug divers channels to the ſouthwards of Maggereu, and come out againe into ſea betwixt the North-Cape and North-Kyn.

Maggereu-ſound.

From the North-cape weſtwards the coaſt lyet alongſt the Iſland weſt and by ſouth about 37 leagues, and then from thence weſtwards falleth away more ſoutherly.

Of the Tydes & Courſes of the Streames.

Betweene Suroye & the River of Alten a ſ. w. and by weſt, & n. e. and by eaſt Moone maketh high water.

At the North-Cape a ſ. ſ. w. and n. n. e. Moon.

To the weſtwards of the North-cape the ſtreames come out of the n. w. & w. n. w. & fall alongſt Finmarck towards the North-cape.

Courſes of Diſtanſes.

From the Iſland Tromſound to the weſt-end of Suroye, eaſt northeaſt northerly	15 or 16 leagues
From the eaſt-end of Suroy to Ingen eaſt and by north	6 leagues
From Holms-buy to the North-Cape eaſt and by north	6 leagues
From the Nort-cape to Nort-kyn eaſt & by ſouth	11 or 12 leagues.

Heights.

The North-Cape lyeth in the height of 71 degrees 30 minutes.

How

FINMARK
van 't Eylan
't
By Jacob
Loots

FINMARCIA

Kynnes
Oisfiord
Schutmyskerry
Laxefiord
Swarholt
Porsangerfiord
Repsfiord
Repsfiord
Hammerfest
Alten bocht
Cannoe
Noordkyn
Lopsangernes
Hamerfeste
Stroomsond
Ingen
Hocy
Sterrey
Ronsond
REESBOTHEN
Maggeroe
Kaerbye
Meltee
Kaerbye
Kaerbye
Kaerbye

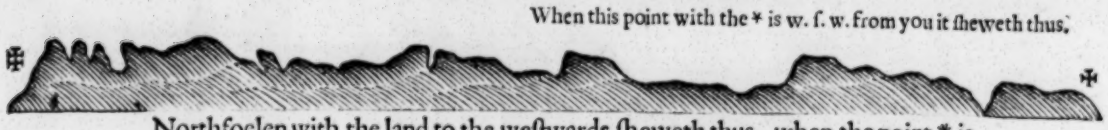
arte van
ARCKEN.
men tot Noord-Kyn.
sterdam;
enisz. op't water
Lootsman.

R C K E N.

Quernanger
Oxefiord
Barfiord
Beesfiord
Spillerin
Ysloe
Skerfen
Fogelde
I. Iromsond
Iromsond
I. Iromsond
I. Loffoten
Egeen calf
Nordfolen
Samdwaer
Samien
Alanger

How theſe Lands doe ſhew them ſelves at Sea.

When this point with the * is w. ſ. w. from you it ſheweth thus.



Northfoelen with the land to the weſtwards ſheweth thus, when the point * is ſouthweſt and by weſt from you.



The land to weſtwards Foelen ſheweth thus, when it is ſ. w. and by ſouth from you.

When Southerfoulen is ſ. w. and by ſouth from you 3 leagues, it ſheweth thus.



Northfoelen ſouth and by weſt from you 3 leagues, ſheweth thus.

Shipholm. Iſland without Suroy.



Thus ſheweth Suroy, as you ſaile alongſt by it 5 leagues off.

When as Shipholm is ſ. e. & the Iſland without Suroy is ſouth about 4 leagues from you, then they ſhew themſelves thus.



Thus ſheweth the land Ingen, when it is e. ſ. e. 4 leagues from you.

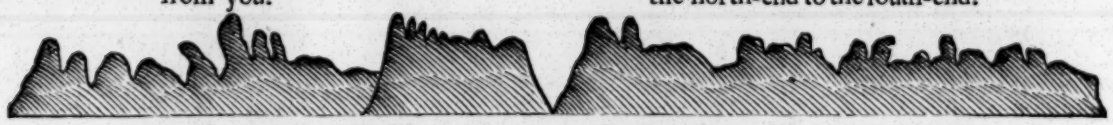
Road of Ingen.



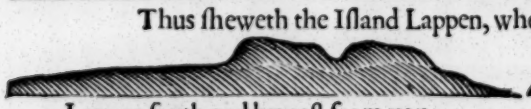
Thus ſheweth Ingen, when this Hill is one league ſouth and by eaſt from you.



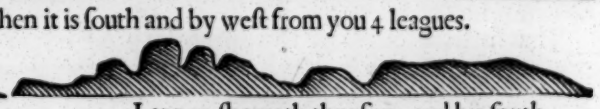
This Hill lying upon the Iſland Lappen, you may ſee over Suroy as you ſaile alongſt by Suroy from the north-end to the ſouth-end.



Thus ſheweth the Iſland Lappen, when it is ſouth and by weſt from you 4 leagues.



Lappen ſouth and by eaſt from you, 4 leagues ſheweth thus.



Lappen ſheweth thus ſ. w. and by ſouth from you 4 leagues.



When as Ingen lyeth ſouth thwart from you about 4 leagues, it ſheweth thus, and then Shipholme lyeth ſouth and by weſt from you.

Long-hill.



Thus ſheweth Ingen, when this Long-hill is ſ. w. and by weſt from you.



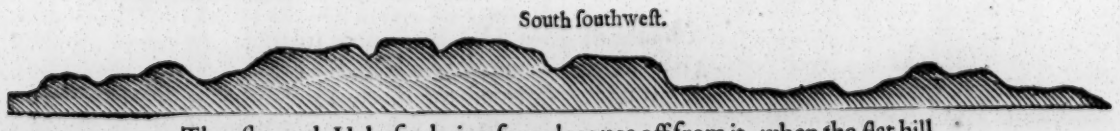
When Helmſey is ſouth or ſomewhat more weſterly about 3 leagues from you, it ſheweth thus.



When as Helmſey is ſouth and ſout and by weſt 5 leagues from you, it ſheweth thus.

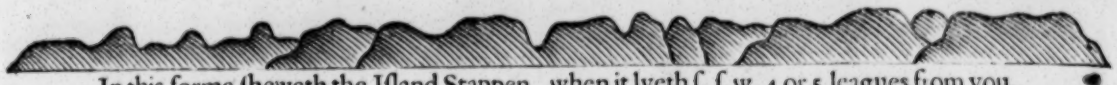
Helmſey being ſ. w. 7 leagues from you, ſheweth thus.

South ſouthweſt.



Thus ſheweth Helmſey being foure leagues off from it, when the flat hill is ſouth ſouthweſt from you.

In



In this forme ſheweth the Iſland Stappen, when it lyeth ſ. ſ. w. 4 or 5 leagues from you.



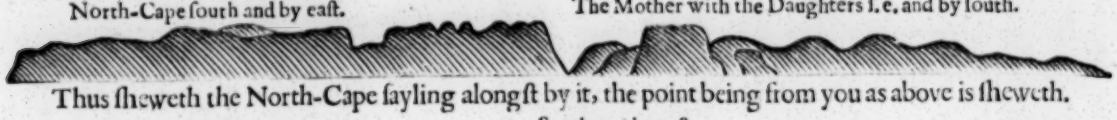
Thus ſheweth Stappen, when it is 5 or 6 leagues ſ. w. from you.

North-Cape ſouth and by eaſt.



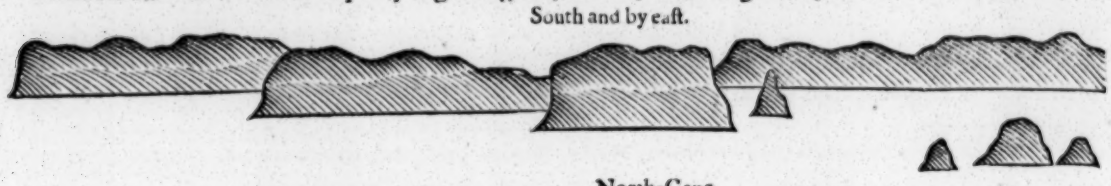
The eaſt-end of Stappen ſheweth thus, when you ſayle alongſt by it.

The Mother with the Daughters ſ. e. and by ſouth.



Thus ſheweth the North-Cape ſayling alongſt by it, the point being from you as above is ſheweth.

South and by eaſt.



North-Cape.

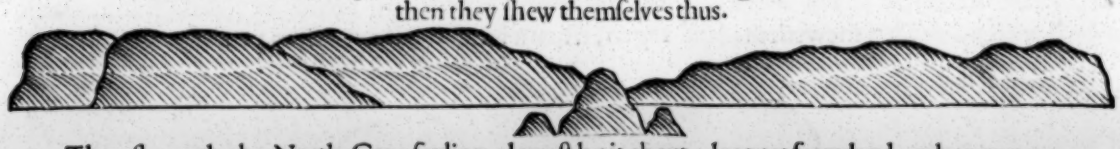
The North-Cape ſouth and by eaſt from you ſheweth thus.



When the Mother with the Daughters is e. ſ. e. from you, the land ſheweth thus.



When the North-Cape is ſ. e. & the Mother with the Daughters ſ. ſ. e. from you, then they ſhew themſelves thus.



Thus ſheweth the North-Cape ſayling alongſt by it about 3 leagues from land, when you are cloſe by the land, you may ſee the Mother alongſt above the land.

North-Kyn.

Mother with the Daughters.



Thus ſheweth the North-cape, when as the Mother with the Daughters ſ. ſ. w. 4 leagues from you, then the North-Kyn lyeth ſ. ſ. e. from you, as is here above demonſtrated.

Southweſt and by ſouth. Southweſt. Southweſt and by weſt.



Thus ſheweth the North-Cape the point being from you, as ſtandeth there above Written, & then you may ſee the Mother from the hatches appeare even above water.



Thus ſheweth the North-Cape, when it is weſt and by north from you, and that you are 3 or 4 leagues without the North-Kyn.

South ſoutheaſt.



Thus ſheweth North-Kyn being ſouth ſoutheaſt, 8 or 9 leagues from you, then lyeth the North-Cape 9 or 10 leagues ſouth ſouthweſt from you, aen then between both you may ſee yet more land in the ſouth ſouthweſt.

The third Demonſtration,

In which are ſhewed

The Sea-Coaſtes betweene the North-Cape and the River of Kola.

North-Kyn. EAſt and by ſouth about 11 or 12 leagues from the North-Cape lyeth North-Kyne. From North-Kyne to Tannebay it is eaſt ſoutheaſt, 10 or 11 leagues, between both, it is all a cleane Coaſt, without Rockes or foule grounds, hig ſteepe craggie land, without any ſtrand.

When as you come ſailing alongſt paſt North-Kyne, towards Tannebaye, you ſhall meete firſt with the point of Slechtnes, a plaine point lying out, verye eaſy to be-known: and then Omega a Fiſher village, ſtanding on the Sea-ſide, even there to the eaſtwards of it goeth in the Tannebay, which is a great deepe Rivier which lyeth in Tanne bay. firſt ſouth, & afterwards ſouthweſt, farre within the land, & doth devide it ſelf in two parts, at the mouth of the River, it is at leaſt two leagues or more broad, & all over verye deepe. He that is bound into the Tannebay, muſt run in

Tanc
bay.

de Cuſten van

NOORWEGEN,

en Laplandt, vande Noord-kyn tot aen de Rivier van Kola.

't Amſterdam.

By Iacob Theuniſz. opt water inde Lootsman.

SAPSAND

Petzmjamon

Prestjnaes

Stoyen

Warangher

Ingelsoe

Vaerdsen

Ieets

Kildinsoe

Ieepona

Vßchers Eylant

Kaerens Inlant

Oosterhaven

Duytſche mylen 15 in een graet

Spaanſche mylen 17½ in een graet

NOORWEGEN.

Dieſholm

Kat Eylandt

Ster

Werhuys

O O R W E G E N

Hoop

Kynaes

Camo-

Tanaſ

Kanchey

Ommegangs

Skethenes

Newlandt

Warangher

Kyrkar

Pennes nes

Nimhed

I. Kors

Ingelsk

Hammerfeſt

Sulesfoord

Poolsfoort

Kongsfiorn

Maakor F

Marthuys

in alonghſt by the weſt ſhoare, becauſe he muſt lye by the weſt ſhoare, on the eaſt-ſide is no road or place where men may anchor.

On the foreſayd weſt-ſide are manie poynts and bayes to ſee to as if they where roads, but you muſt ſayle paſt them all ſo long, untill that you ſee on the ſame weſt ſhoare two rounde hill, where upon ſtandeth a Wardes a little paſt that ſtand ſome Fiſhermens Houſes, upon a low hommock, thwart of theſe Houſes runneth off from the land a low flatt poynt, you muſt runne in behind that poynt, and anchor before thoſe Houſes, with an anchor to ſeawards and a hauwſer faſt on the land.

Matkorf. A little to the eaſtwards of Tanne-bay lyeth the poynt and the land of Matkorf, from thence to Wardhouſe the coaſt lyeth ſoutheaſt and by eaſt, ſoutheaſt, and moſt ſoutheaſt and by ſouth 16 leagues, betwixt them there is much high plaine land. Halfe wayes betwixt bot, but neareſt Wardhouſe. Wardhouſe, lyeth a high hommock upon the high land, to ſee like a Caſtle or Countrie Houſe, verie eaſy to beknowne, beingh thwart of it cloſe by the land, it ſeemeth as if there where a great Sound, where men might ſayle into Wardhouſe are three little Iſlands with ſome little Rocks alſo by them, the ſouthermoſt the greateſt of the three, which onely is inhabited, upon it is a village of about 300 Norway Houſes with a caſtle, it is about a half league long, and lyeth an Engliſh myle off from the land, lyingh as the Coaſt moſt ſouth and north, betwixt both, it is all over deep water. On the ſouth-ſide of this Iſland lyeth a haven or great baye about half wayes the Iſland, and likewiſe one alſo on the north-ſide, ſo that theſe two bayes doe come ſo neare one to the other, that there remaineth to more then a narrow chindle ſtrand about a ſtone caſt broade, dividingh ſo the Iſland almoſt into two, the eaſter moſt part is the ſhorteſt and higheſt, the weſtermoſt is the longeſt. Cloſe upon the ſtrand, on the eaſt-ſide of the ſouther haven lyeth the Caſtle, to the northwards of it, upon the foreſayde chindle ſtrand, and about the Baye ſtand the Houſes. In the ſouther Bay it is good lyingh, but the beſt road is betwixt the maine land and the Iſland about halfe wayes on the ſide of the Iſland againſt a Sand-bay, and right againſt the Caſtle, there is good anchor ground, in 10 or 12 fatum landlockt for all winds, except for north and ſouth winds, which blow there right through, yet men have ſome ſhelter of ſome poynt of the Iſland. Men may without feare come in there, betwixt the Iſland and the Manie, either from the ſouthwards or the northwards, it is all over cleane and cleare, but he that commeth in from the northwards, muſt runne ſomewhat nearer the Rock, where the gallowes ſtandeth upon, then the Iſland, becauſe there obouts the Iſland is a little foule. Roade Kilduyn.

About a ſhot of a caſt peece northwards from the greateſt, lye the two ſmalleſt cloſe one to another, ſeemingh a farre of to be one Iſland, are together not an Engliſh mile longh, but high and rocky to ſee to, there lye alſo two or three rocks by them.

On this Coaſt like as at the North-Cape a northeaſt and ſouthweſt Moone maketh high water.

From Wardhouſe to the poynt of Kegor or the Fiſhers Iſland, the courſe is ſoutheaſt and by ſouth 10 leagues.

Betwixt them both is a great baye, where in are divers Sounds and Rivers, amonghſt other, the River Pitſingh, which is a great faire and large River, where men may goe in with great ſhipps, a good wayes within the river is good road, there is taken and laden much Sammon, but there fall no other ſpeciall wares. South ſouthweſt from the poynt of Kegor lye two Iſlands, to the ſouthwards of them men doe runne into Monnickforde.

Kegor or Fiſhers Iſland. Kegor is a fayre haven, lying at the north end of the Fiſhers Iſland, a little without the poynt; There lye two or three rocks at the north poynt of the haven, and alſo a ſuncken rock in the middeſt of the havens mouth; you leave the ſuncken Rock, with the other Rocks on the ſtarboard ſide of you, and runne in by the ſouth ſhoare and edge then behinde the foreſayd rocks, and anchor there in ſeven or eight fathom, the havens mouth lyeth in ſouthweſt, it is there ſo good lying as in any havens there abouts on the coaſt.

Easterhaven. The Danes call this haven Easter-haven, there was wont to be the Staple of the Fiſh, where every one muſt come to buye: there fore the Iſland is yet called, where on Kegor lyeth the Fiſhers Iſland.

It is indeede no Iſland, but very neare: it is faſt to the maine land, with ſuch a very ſmall neck, that the Ruſſes, which come from Kilduyn, or the Rivier of Kool, and are bound to the River Pitſing, doe goe alongſt within this land, and hawle their boater over that ſmall neck, for not to goe about a ſeaboard.

Laus. From Kegor to Laus, the courſe is alongſt the ſhoare ſoutheaſt and by ſouth, ſomewhat eaſterly nine or ten leagues. This is a right playne coaſt, without poynts or bayes, all alongſt by Laus to Tiepena, but the ſouth poynt of Laus lyeth out a little, upon which ſtand two Warders, to the northwards of that poynt is the haven of Laus, a fayre ſandbay, there is very eaſy lying for ſouther or eaſterly winds, but not for northerly winds, the winds betweene the northermoſt and northeaſt doe blowe there open in, and make there in a very great hallow ſea, men lye there in twelve, tenne and eight fathom, according as they runne farre in, the farther the ſhoaler, but alle cleane riſing ſandground.

From Laus a little towards Kegor lyeth a little Iſland, behinde which is good anchoring for eaſterly winds, in cleane ſand-ground, but it is ſomewhat narrow.

Tiepena. From Laus to Tiepena, it is a great half league, at the poynt lye ſome little rocks, but you cannot ſee them, before you be cloſe to them. Tiepena is a fayre haven, when you come from the northwards, you muſt runne ſo farre to the ſouthwards, alongſt by the ſhoare, untill that you ſee open into it, and ſayle in amidſt the channell. When as you come from the ſouthwards, the haven openeth it ſelfe, being come in, you muſt edge up to the northwards, & anchor there, there you lye landlockt for all winds, there are no dangers which may hurt you, but it is over al cleare & cleane ſandy ground.

Kowens. A little about the poynt, to the ſouthwards of Tiepena, which is on the ſw. ſide of the Fiſhers Iſland is another faire haven, where men may goe to anchor, called Kowens.

From Laus to the River of Kola, the courſe is ſouth and by eaſt and ſouth ſoutheaſt about tenne leagues. But Kilduyn and Laus lye ſoutheaſt & by ſouth, ſomewhat eaſterly and northweſt and by north, ſomewhat weſterly alſo tenne leagues aſunder.

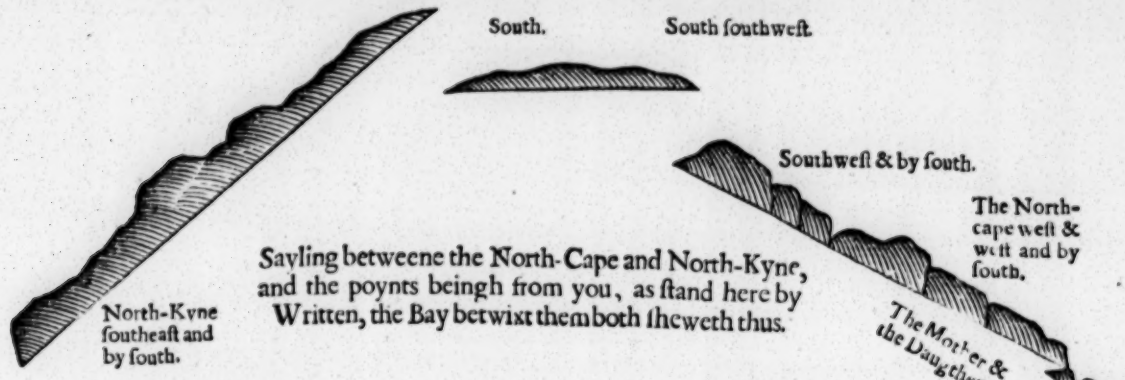
Of the Tydes and Courſes of the Streamus.

At the North-Cape a Southweſt Moone maketh high water.
Thwart of the Tannebay a ſouthweſt Moon maketh high water.
At Wardhouſe a ſouthweſt Moone maketh high water.
On this coaſte like as at the North-Cape a northeaſt and ſouthweſt Mone maketh high water.
Alongſt theſe coaſts of Lapland to the eaſtwards of North-Cape, the flood commeth out of the northweſt and north northweſt, & ſo runneth alongſt the land unto Orlogeas.

Courſes and Diſtances.

From the North-cape to the North-kyne, eaſt and by ſ.	11 or 12 leagues
From the North-kyne to the Tannebay eaſt ſoutheaſt	10 or 11 leagues
From the Tannebay or Matkorf to Wardhouſe, ſ. e. & by eaſt, ſoutheaſt & ſoutheaſt and by ſouth	16 leagues
From Wardhouſe the poynt of Kegor ſoutheaſt and ſoutheaſt and by ſouth	10 leagues
From Kegor to Laus ſ. e. and by ſouth eaſterly	9 or 10 leagues
From Laus to the River of Kool ſouth and by eaſt, and ſouth ſoutheaſt	10 leagues
From Laus to Kilduyn, ſoutheaſt and by ſouth eaſterly	10 leagues.

How theſe Lands doe ſhew them ſelves at Sea.



Sayling betweene the North-Cape and North-Kyne, and the poynts beingh from you, as ſtand here by Written, the Bay betwixt them both ſheweth thus.



Thus ſheweth the land betwixt North-Kyne and Tannebay, when the North-Kyne is ſ.ſ.w. 8 leagues from you and the poynt of Tannebay, ſouth and by eaſt.



Thus ſheweth Kyne, when the hill with the Croſſe is ſ.ſ.w. from you 2 leagues.



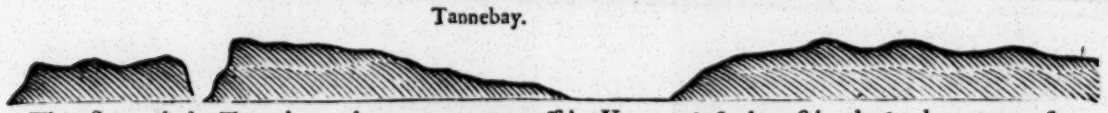
Thus appeareth the Mother.

When this hill with the Croſſe is ſouth and by weſt from you 2 leagues, then ſhewet North-kyne thus.



Thus ſheweth the land betwixt Kyne and Tannebay, when you ſayle alongſt by it 7 or 8 leagues without the land, Kyne being ſ.w. and by weſt from you.

Tannebay.



Thus ſheweth the Tannebay, when as you come off by Kyne, cloſe alongſt by the land, you may ſee theſe two poynts on againſt the high Innerland, the eaſt-poynt ſheweth it ſelfe, almoſt like Portland, the weſt-poynt ſheweth it ſelfe firſt ſloping, but when you come by little before the Sound, then it will be alſo ſteep.



When as Matkorf is thwart from you, then it ſhewet, & the land to the nordwards of it towards Kyne thus.



Thus is the land to the eaſtwards of Tannebay, when as you ſail alongſt by it 3 leagues without the land.



Thus ſheweth the Iſland Wardhouſe, when it lyeth ſouth from you 3 or 4 leagues.



In this forme ſheweth the Iſland Wardhouſe, and the land to the northwards of it, when it is ſ.ſ.w. a league and a halfe or two leagues from you.



Thus ſheweth the land and the Iſland Wardhouſe being w.n.w. from you 3 or 4 leagues.

Thus

Het eylant Kildhuyn met de Rede na't leven ontworpen leggende op de hoogte van 69 gr. 40 min.

LAP-

LANT.

Een Duytsche myl
Een Spaensche myl
Een Eng. of Fra. myl

Dese slyp dyrt met hoog water bloot

Swerhael

LAPL

tusschen de R

Kola en de

Sweten

LAPPL

Ende Eylanden van Swetenes

Kildin

Cruneckeyst-

Noordoster Vogel eylant

De Skaffer

De Seven Eylan den

Stavrenes

Swarten hoeck

Duytsche mylen 15 in een graet

Spaensche mylen 17 1/2 in een graet

Eng. en Fra. mylen 20 in een graet

de Rivier van
KOLA
in't groot besteck.
't Amsterdam.
By Iacob Theunisz opt
water in de Lootsman.

Een Duytsche mijl
Een Spaensche mijl
Een Eng. of Fra. mijl

Kola

A N D T.

Eyl Kilduyn

The Kwakiutl of Queen Charlotte Islands and Kosmos

Rep. int. Kwak.



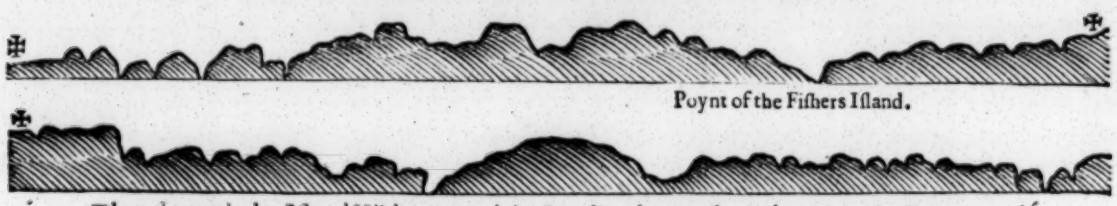
Thus ſheweth the Land of Kegor to the Fiſhers Iſland, when as you ſayle alongſt by it 4 or 5 leagues without the land.



Thus ſheweth the Land of Kegor or Fiſhers Iſland, when as you ſayle alongſt by it comming from the weſtwards.



Theſe three laſt Figures belong one to the other by the Croſſes.



Thus ſheweth the Iſland Kilduyn, and the Land to the northwards of it in the Bay towards Fiſhers Iſland, when as you are betwixt them both 7 or 8 leagues from Land, Kilduyn being about ſouth or ſouth ſouthweſt from you.

The fourth Demonſtration,

Where in are Deſcribed

The Sea-Coaſtes of Lapland betweene the River of Kola and Iſlands Swetenoes.

The River of Kool.

FOR to ſayle up into the River of Kool of Kola, you muſt goe from Laus, or the ſoud-end of the Fiſhers Iſland towards the River ſ. ſ. e. and ſouth & by eaſt, run about by the hig land of Poden-wolck, and then the River ſhall open it ſelfe very wide. When you are by the point of Laus, you may ſee the Iſland Kilduyn, & the River of Koole, or the land by it: Betwixt Laus and the River of Koole, is alſo a great Baye.

When as you are in the mouth of the River, it lyeth in firſt ſouth and by weſt, and then ſ. ſ. w. to that Iſland, which ſtandet marked with *A* in the Carde of this River, & then by little and little ſ. w. and by ſouth, alongſt by the Iſland marked with *B* unto the Trayne Iſland then ſouthweſt and by weſt, and by little and little about the poynt weſt and by ſouth, afterwards in weſt, unto Divels point, over againſt it lyeth the White ſtone, which lyeth upon the land, thwart of it is good roade. From thence againe weſt and ſouth, w. ſ. w. and ſ. ſ. w. unto Kool.

Road in the River.

When as you come into the River, and will ſeeke roade there, you muſt keepe alongſt by the weſt-ſhoare, being ſomewhat within, you ſhall ſee a little Iſland lying cloſe by the ſhoare: from thence ſomewhat further about the hig poynt is a Bight or Baye, and in that Bight a Sand-baye, where men may ſave a ſhippe without Anchor or Cable, that is a fayre Sand-baye, where men may runne in all alongſt.

Alongſt by the north-ſide it is five fathom deepe, and cleane Sand-ground, men runne in there betwixt the two poyntes, but there lyeth a black Rock in the narrow, betwixt both ſhoares, which they muſt leave lying on the ſtarboard-ſide, within that Rock it is three and two fathom deepe unto the ſtrand, within there is fayre greene fields.

A little without the Baye lye two Iſlands, where of the outermoſt or eaſtermoſt is the ſmalleſt. When as in ſayling up alongſt the River, you may come by theſe two foreſayd little Iſlands about halfe wayes to the Iſland marked with *A*, there is alſo good roade, at the weſt-ſhoare, you ſhall ſee upon the hig land three Warderes called the three Kings, thwart of them is the roade. Roade three Kings.

When you are ſomewhat paſt the Iſland *A* you cannot ſee the River any more open, but it ſeemeth to bee ſhut, and cloſe, for that Iſland by *A* commeth, then under the hig land, on the eaſt-ſide.

Under the Iſland marked with *B* is alſo good road and cleane Sand-ground. Roade.

Likewiſe is alſo good road under the Trayne Iſland, that is reckoned for the halfe of the River, to witt of from the mouth of Kool.

When as you come now a little paſt the Trayne Iſland, where the *C* ſtandeth, then you ſhall ſee out a head black blewe hill, called the Divels-hill, it ſeemeth there, as if the River where cloſe and ſhut. It is beſt ſayling alongſt by the ſtarboard-ſide, there you have moſt all ground cloſe by the land. There are many Bights, poynts, and Bayes, which are not all to deſcribed. Divels hill.

On the other ſide men doe not come ſo commonly, (except it be againſt their wills) there ſeeme alſo to bee many bayes and roades, and alſo ſome little Rivers. When as you come alongſt by the Divels-hill where the *D* ſtandeth, paſt the White ſtone, then you may ſee the Klinck-hill on the weſt-ſide, and allmoſt alonghſt unto Kool. When as you may ſee the Klinck-hill, there is ground by the weſt-ſhoare for to anchor in; then there are on both ſides no dangers, but when as you come ſo far into the place, where the letter *E* ſtandeth marcked, there you muſt ſomewhat ſhunne the weſt-ſhoare, becauſe of a little ſhoale which ſhooteth of from the ſhoare, and keepe in the middle of the channell, untill that you come againſt the Klinck-hill, there you muſt againe goe cloſe alongſt by it, in the middeſt of the fareway lyeth an Iſland of Rocks, which at high water is covered, where of yuu muſt take good heed. Klinck-hill. Rocke.

From the Klinck-hill unto the Robben Iſland ſayle all alongſt by the weſt-ſhoare, the Robben Iſland is alſo covered at high water, but when it is under water, then anchor thwart of the burnt trees. Thwart of the Robben Robbe Iſland.

Iſland lyeth a very great Rocks, as ſone as you are thwart of the high land, looke out carefull for it, keepe without it, or to the northwards of it, to with a bow ſhot, there is the roade, there you may anchor by the ſhoare ſo ſhoale as you pleale, it is there good lying, and there you begin to ſee Kool alongſt by the houſe. Betwixt the Iſland Kilduyn and the River of Kola, ſomewhat nearer the River then the Bliesna Silenſi. Iſland, lyeth a haven, called Bliesna Silenſi, that is to ſay, the next to Silenſi, there you ſayle in by a round reddiſh Hommock, being come within it, you muſt edge up to the weſtwards, ſo that the haven is altogether ſhut, and that you can ſee no Sea, you may anchor there ſo deepe or ſhoale as you will, it is there every where cleane white ſandy ground, and ſomewhat oazye and ſoft, there you may alſo without feare ſayle on againſt the ſhoare in the oazy, and may ſave a ſhippe without anchor cables.

Kil-duyn. The Iſland Kilduyn is about two leagues long, and one league broade, & lyeth w. n. w. & eaſt ſouth-eaſt alongſt the land, like as alſo the channell betwixt the Iſland and the maine land, which is at ſome places about a halfe leagues broade, and at ſome places, narrower, but all over very deepe and cleane. About the middeſt, yet neareſt the eaſt-end, is a faire cloſe road, betwixt two poynts, that lye out towards the mayne land, there men lye under the Iſland, cloſe to the ſhoare, before the Laps tents, under the eaſtermoſt-poynt, which is a low playne poynt, in twelve, thirteene or fourteene fathom, ſandground, more to the ſouthwards it is very deepe, you ſhall ſoone have fifty and ſixty fathom.

For to go into Kil-duyn from the weſt-wards. If you will goe to anchor under Kilduyn comming from the northwards or the weſtwards, then runne about by the weſt-end, in betwixt Kilduyn and the mayne land. When you are come ſomewhat within, you ſhall eſpy a little round Iſland, there the Channell beginneth to be narrow, yet it is broade enough for to turne to windwards through, ſayle forth towards the ſoutheaſt-end, untill you come in betwixt thoſe two poynts, and run to the foreſayd low poynt, and anchor there within the bight, before the cabbens ſo neare to the lands as you pleaſe, there you lye land-lock for all winds, as if you lay within a Towne in a cloſe Haven.

For to ſayl in to Kil-duyn from the eaſt wards. For to ſayle in from the eaſtwards, you muſt ſayle in to the weſtwards by the eaſt-end, ſo long untill that you come by the foreſayd low poynt of the Iſland, then edge up about it to the northwards, & runne into the foreſayd Bigt, before the Cappens, and anchor there in 12, 13 and 14 fathom, that is the chiefeſt roade.

At the north and eaſt-end of Kilduyn, betwixt the Iſland and the mayne land, there is alſo a very good roade, in eight, tenne or twelve fathom, where men may lye ſheltered for all winds. There abouts is on the Iſland a good water place, there the water commeth run in off from the high land, there men may goe lye by it and fill their caskes lying in the boate.

You may alſo anchor under the mayne land, betwixt the narrow, and the Roade of Kilduyn, at the place where the anchor ſtandeth marked, in the Carde. At the eaſt-end of Kilduyn lyeth alſo a Fiſhers village, called Kammen, at a high poynt, which is called the Sacrifice-poynt.

From the Iſland Kilduyn to the poynt Tyribiry, the courſe is ſoutheaſt and by eaſt about 5 leagues, betwixt Bliesna Olinie. them is a great Bay. In this Bay, a great league from Kilduyn lyeth a high Iſland called Bliesna Olie, which is the next or the neareſt Olinie, behinde it, under the mayne land, neareſt the ſouth-end of the Iſland is a good road, where three or foure ſhips may lye very well.

There lyeth a round hill, or high Hommock upon the mayne land, which ſheweth out above all the other Hommockes, and is very eaſy to be knowne, upon which ſtandeth a high croſſe of two croſſes one above the other to the northwards off it lyeth a flat poynt, thwart of it lye ſome Rocks alongſt the ſhoare, which at high water are covered.

At the ſouth-end of the Iſland Olinie, a little from land, lyeth a Rock allmoſt even with the water, but you may alwayes ſee it well by the breaking of the water.

To the Northwards of the Iſland about an Engliſh myle, lyeth a Rock not farre from land, and alſo to Seawards from it a ſuncken Rocke, which you cannot goe over at low water.

Hee that will (comming from the northwards) goe to anchor behinde Olinie, muſt runne a good wayes to the eaſtwards this foreſayd Rocke alongſt to the northwards of the Iſland, for to avoyd the foreſayd Rocke being come behinde the Iſlands, you ſhall eſpy the foreſaid raund hommock with the croſſe, you muſt not runne paſt the croſſe, but leave it on the larboard ſide, and ſayle in cloſe by it for to avoyd the foreſayd Rockes, which lye off from the flat north-poynt, the poynt with the croſſe is very cleane and ſo ſteepe, that you migt lye with a ſhip on againſt the ſhoare without any hurt.

He that will come into this Road from the ſouthwards, let him run alonghſt by the coaſte, which is very cleane, untill paſt the foreſayd poynt with the croſſe, and edge up cloſe about by it, as is beforeſayd.

Men doe anchor within the poynt in ſeven, ſixe, five, foure and three fathom, deepe or ſhoale as they will, there goeth no grown Sea at all.

About halfe wayes betwixt the Iſland Olinie and Tiribiry Tiribiry. is another haven or great Bay, where men may lye landlockt for all winds.

Tiribiry is a great River and off-water, where is a great Sammon fiſhingh, there men may goe in with great ſhippes, and anchor every where within it where they will in good ſandy-ground, it lyeth in moſt ſouth, and atterwards more weſterly, the eaſtermoſt poynt lyeth out more to Seawards then the other, ſo that it maketh a bay, where men ride under for a northweſt-winde.

Two leagues to the ſouthwards of Tiribiry lyeth Waronia, which is a great ſand-bay or haven, which at the mouth is narrow, but within it is a broad Sound, there is alſo an off-water, where is alſo much Sammon caught.

Within this bay it is every where good anchoringh ſhoale water and cleane ground.

Before the mouth of this haven lye three little Iſlands, behinde them it is alſo good road.

Two leagues or two leagues and a halfe to the ſouth- Gabriele. wards of Waronia lyeth a Gabriele, a tyde haven, which falleth dry within, ſo that men may goe over there dry at low water, it floweth there 12 foot up and downe, a ſ. ſ. w. Moone maketh high-water on this Coaſt.

In the mouth of this haven lye three Iſlands, two on the north-ſide (which are the loweſt) and one on the ſouth-ſide, that is the higheſt, you muſt runne neareſt the ſoutermoſt when as you will ſayle in there: beingh come within the Iſlands, you muſt edge up to the northwards behinde the two northermoſt Iſlands, and anchor there on the north-ſide of the haven, there it is 7 and 8 fathom deepe cleane ground.

About a league to the ſouthwards of it lyeth Salenſi Daelna Sileníi. Daelna, that is to ſay, the fartheſt Salenſi; but betwixt them both a little to the northwards of Salenſi, lyeth yet a great in-draught which lyeth in at leaſt two leagues into the land, and is about ſo wyde as the River Tye before Amſterdam, there may lye a great multitude of ſhippes, it is there broade and large enough, and all over good anchor ground.

A little to the northwards of this in-draught lyeth a little Iſland, or Rock, ſomewhat high, about which you may ſayle within, to witt, through betwixt theſe Rockes and the and, but may make no road under them.

Salenſi Daelna is a great broad Bay, before it lye three Daelna Sileníi. Iſlands, which are to ſee to gray of colour, as the mayne Land.

To the northwards of theſe Iſlands upon the poynt of the Bay ſtandeth three great Wardes, and a little to the ſouthwards of the Iſlands, on the mayne Land lyeth a ſteepe hill, by which markes this Bay is very eaſy to be knowne.

If you will ſayle into this bay commingh from the northwards alonghſt the ſhoare by the foreſayd great in draught, a little to the northwards of this Baye, you muſt looke out for theſe foreſayd great Warders, leave then on the ſtarboard ſide, and ſayle in cloſe by them, through betwixt that poynt and the Iſlands, firſt weſt ſouthweſt, ſomewhat within, and then more ſoutherly, untill behind the Iſlands

and

and anchor there in 5, 6 or 7 fathom: you may alſo ſayle further to the ſouthwards: into the baye, ſo deepe as you will, there is all over cleane.

When you come before the channell, it ſeemeth to bee very narrow, but is broad enough.

To the ſouthwards of theſe Illands is alſo a channel which is very narrow, but yet for need you may ſayle out there. The ſouthermoſt Iſland, that is, where upon the Fiſhermen dwell, is faſt to the northermoſt with a ſhoale, where upon is at hig water 10 or 11 foot water, but at low water you cannot goe over it.

Daelna Olinie. Two little leagues to the ſouthwards of Salenſi lyeth the Iſland Daelna Olinie, that is to ſay, the Furtheſt Olinie, it is an Iſland almos of Faſhion like Bliesna Olinie, at the north end high, at the ſouth-end lower, and upon the end very ſteepe, it hath in the middeſt, (but ſomewhat neerer the ſouth-end then the north-end) a low valley, where at high water the Sea doth almoſt run alongſt over it.

Behinde this Iſland, not under the Iſland, but under the maine lands, are good roades.

For to come in from the northwards behind this Iſland it is a broad, large, and very deepe Channell, without any dangers, but if you will ſayle in behinde it (from the ſouthwards) then you muſt runne in cloſe by the Iſland, for to avoyde a foule and ſtony riffe, which lyeth off from the maine land, halfe wayes to the Iſland, and ſo ſhoale that it falleth dry with the ſpring tydes at low water

About halfe wayes the Iſland, neareſt the ſouth-end, is a point, lying out from the maine land, towards the Iſland, to the nordwards of it men doe anchor in 6,7 or 8 fathom.

When you come in from the northwards, you may (ſo ſoone as you come within the points) luffe up towards cloſe about the point of the main land into a bay, and anchor there in 8, 6, 5 or 4 fathom, according as you ſayle far in, there is very eaſy lying. In theſe roades under the maine land, it is all cleane one flat riſing ground, but under the Iſland is deepe, and the grounds riſing very ſteep, and therefore it is not good anchoring there.

Betwixt this Iſland Daelna Olinie, and Silenſi, lye 3 little black Iſlands, where is very eaſy road under them in 8,7 and 6 fathom.

Rinde. From Daelna Olinie to Rinde are 5 leagues. Rinde is a very faire Haven, before it lye foure little Iſlands, where men may goe to anchor behinde them, behinde theſe Iſlands this haven hath two bayes, upon the point betwixt them both ſtandeth a great Croſſe, the ſouthermoſt baye is farre the greateſt, into it commeth alſo a river or offwater, where men doe catch Sammon. The middlemoſt Iſland (which is the northermoſt ſave one) is the greateſt and higheſt, upon which ſtandeth a great Warder, the northermoſt is ſomewhat long and ſmall, and ſo low, that at hig water the Sea runneth up a good wayes upon it on both ſides, and ſo maketh that Iſland ſmaller.

Betwixt that Iſland & the maine land, or the north ſhoare of the Havens-mouth lyeth a ſuncken Rock, which you muſt leave, in comming in, on the larboard-ſide, and runne in cloſe by the main land, this channell is ſo narrow, that you cannot ſaile in it, except you havo a large wind, at low water there remainet no more then 9 or 10 foot water.

To the ſouthwards of that great Iſland, lyeth another Iſland that is indifferent high and the ſouthermoſt of them all, betwixt that and the poynt of the maine land, lyeth in the ſouther channell, which is broad and deep enoug, but when you ſayle in there, you muſt run neareſt the land, for to avoyd a ſunck rock which lyeth at the foreſaid point of the mayne land.

Theſe channells both from the ſouthwards and from the northwards lye in both a alongſt the ſhoares, when as that you come then within the Iſlands you may anchor there all over where you will, there it is broad and large, and every where cleane and cleare. Men doe anchor commonly under the greateſt Iſland thwart of the great Warder, and alſo behinde the northermoſt Iſland 5, 4 or 3 fathom, there it is very eaſy lying, but with a ſ. e. winde, the Sea commeth a little rowling in, but there can goe no great Sea.

Farre within the ſouthermoſt bay, almoſt before the river, lyeth a rock, but above water. Without the greateſt and the ſouthermoſt Iſland, lyeth a little Iſland, or great rock, ſomewhat round, you may ſayle out and in betwixt the ſouthermoſt and the greateſt Iſland, alongſt to the northwards of that little round Iſland, that is you muſt leave the ſouthermoſt Iſland with the outermoſt little round Iſland both on the ſtarboard-ſide, and the greateſt Iſland with the Warder on the larboard ſide, when you ſayle out, this is a very narrow channel; but very cleane and cleare, ſo that there is nothing to be avoyded, but onely a little ſuncken Rock, which lyeth at the north-end of the outermoſt little round Iſland, and falleth dry at low water; nevertheleſſe it is not good to uſe it, except it were for need that you could not doe better.

He that is bound into this haven, muſt run cloſe alongſt by the ſhoare for to get ſigt of the foreſayd Iſland, for by reaſon that the inner land is hig; the Iſlands lye ſo under the land, that men can hardly ſee them, when they be any thing farr off from the ſhoare.

A halfe league to the ſoudwards of Ride is another great Bay, or Haven, before it lye two little hig Iſlands upon the northermoſt ſtandeth a great croſſe, you may ſayle in there about on both ſides of theſe little Iſlands, and alſo throug betwixt them, and anchor were you will in 15, 12, 8 or 5 fathom deep or ſhoale, according as you ſayle farre in, and lye there ſheltred for all windes, but when the winde is hard out of the Sea, thwart upon the ſhoare, there will come in ſomewhat a rowlingh Sea, but there can goe no great Sea that can hurt you. A little to the northwards of this Haven lyeth a low long Iſland cloſe to the ſhoare, whereby you may alſo know this Coaſt, you may ſayle throug betwixt this foreſaid Iſland and the maine land without any danger.

From this Haven to the Seven Iſlands are 4 great leagues. A little to the northwards of the end of the ſeven Iſlands, lyeth a fayre great ſand-bay, where is alſo good anchoring for ſoutherly and ſ. e. winds, but not for eaſterly winds, with a n. e. or Sea wind, it is bad lying there, for there is no ſhelter for them, men doe anchor there in 20, 15 or 12 fatum, according as they lye far or neare to the ſhoare. The Ruſſes call this Bay the Golden Bay, becauſe the ſtrand is of red Sand. Golden Bay.

On all theſe foreſaid caſts a ſ. w. and n. e. Moone make hig water, like as on the former.

Seven Iſlands. The Seven Iſlands lye all of them alongſt the ſhoare, the firſt or northermuſt is farre the greateſt of all, a hig Iſland. The foure northermoſt follow cloſe one to the other, and lye about an Engliſh mile, or a ſhot of a caſt pece, a little more or leſſe of the land, ſo that men may ſaile there throug betwixt. The fifth is a little round Iſland, and lyet nearer to the land, there you cannot runne throug within it, which is faſt to the land with a ſhoale of rocks, whereof ſome lye above, and ſome under water. The two ſouthermoſt lye a good wayes to the ſouthwards of the fifth. Betwixt them and the maine land you may alſo ſaile throug, you may alſo runne throug in and out betwixt theſe ſand Iſlands every where, except betwixt the ſecond and third off from the northwards betwixt them both it is fowle.

The firſt Iſland. Betwixt theſe Seven Iſland and the maine land, goeth a ſtrong tyde, as well of flood, as of ebbe, where of men muſt be very carfull.

Betwixt to northermoſt and the mayne land is a good road (thwart of the ſouth-end of the Iſland) under the mayne land, there is a fayre ſandbay, with an offwater, where is much Sammon to be caugt, but it is not there uſed.

A little to the northwards of this Sand-bay lyeth a little Iſland betwixt the great Iſland and the coaſt, men doe anchor to the ſouthwards of that little Iſland, thwart of the ſand-bay in 7, 6 or 4 fathom, ſo ſhoale as they will, there is a very even ſand-ground, riſingh ſo even as if it where planed.

Over againſt the foreſayd bay men may make road under the ſouth-poynt of the Iſland, thwart of a little bay, there they bring a hawſer on land, & an anchor to Seawards in 19 fathom, there they lye ſomewhat more out of the tyde then in the bay over againſt it.

Betwixt this great Iſland and the coaſt is about two third parts of the channell towards the mayne land, flat riſingh

ground, and the other third part towards the Iſland Deep; the neerer the Iſland the deeper unto 18 and 19 fathom.

About halfe wayes betwixt that foreſayd little round Iſland, and the north poynt of the greateſt Iſland ſtand on the main land ſome little Lappiſh houſes, or a little village.

Second & third Iſland. Betwixt the ſecond and third Iſland, or neareſt thwart of the ſecond, to toll from the northwards, lyeth yet a little village, thwart of it is a bay where men may anchor in ten or twelve fathom all cleane ſand-ground, but with a ſouth-wind there commeth in a rowling Sea, but with northerly winds it is very good lying there.

The fourth Iſland. Thwart of the fourth Iſland on the mayn land, is alſo a ſand bay, where is alſo good road in 7 or 8 fathom for a northweſt or north-wind, but with an eaſt-winde it is there bad lying, that bloweth there in open through betwixt the fourth and fifth Iſland.

The Shipper Even at the end of the Seven Iſlands is a great Indraugt, or bay, which the Ruſſes call the Shipper, which is narrow at the comming in, but within indifferent large and wide: within it is good road in 12, 8 and 4 fathom clean riſingh ground, but with a northeaſt-wind it is bad lying there, that bloweth there flat in.

About nine leagues to the ſouthwards of the Seven Iſlands, lyeth a poynt called Siornenos, that is to ſay, Black-poynt, it is ſo called, becauſe it is very black to, there within it the land is high, and goeth downwards low towards this poynt, allmoſt as Swetenoes.

At this poynt the land beginneth to alter in forme, to the northwards of it the coaſt is altogether high, but to the ſouthwards of it all low and even land, ſo that there by you may know (when you ſaile alongſt this coaſt) whether you be to the n. ward or to the ſouthwards of this black poynt.

Noock Oſtrove. A little to the northward of this point lyeth a high & great Iſland a halfe league longh, which the Ruſſes call Noock Oſtrove, which is the Nayle Iſland, behinde it is very good roade, you muſt run in there from the ſouthwards; from the northwards, you cannot come in there behind it.

The north-end is faſt to the mayne land with a bancke or ſtrake of ſand, which lyet moſt part above water, you may ſayle in there ſo fare behinde it as you will, and anchor in 10, 8, 6 or 4 fathom, the further that you ſayle in, the ſhoaler it is, it is very good lying there, and ſheltered for all winds.

From the Siornenos, or the black-poynt to Evanekriſt, it is ſ. ſ. e. 4 leagues, that is a poynt with many croſſes, under it you may make good roade for ſoutherly-winds. Evanekriſt.

From Evanekriſt to Kletna are yet 3 or 4 leagues, this is a poynt where upon ſtand alſo many croſſes, it lyeth out a little, but not ſo much as Evanekriſt, there you may have alſo road for ſoutherly-winds, but not for Seawards. Kletna.

From this poynt to the Iſlands of Swetenoes or Jockena, it is two leagues. Iſland of Jockena.

Of the Tydes & Courſes of the Streames, about theſe foreſayd Places.

At Kilduyn an eaſt ſoutheaſt Moone maketh the higheſt water.
At Seven Iſlands a ſoutheaſt Moon maketh higheſt water.
At Sweetenoes a ſouth and north Moone maketh high water.
Alongſt the Coaſtes to the eaſtwards of the North-Cape, the floods come out of the northweſt and north northweſt, and run ſo alongſt the coaſt of Lapland, unto Orlogonoſe.

How theſe Lands doe lye one from the other, and from other Lands.

From Kilduyn to the poynt of Tierrebirry ſ. e. & by eaſt	5 leagues
From the poynt Tierrebirry to the Seven Iſlands, ſ. e. & by ſouth	18 leag.
From Tierrebirry to Swetenoes, the coaſt lyeth, ſ. e. & by ſouth	40 leag.

Heights.

The land Kilduyn lyeth in 69 degrees and 40 minuten

How theſe Lands doe ſhew them ſelves at Sea.



In this forme ſheweth Kilduyn, when the ſteepe poynt lyeth ſ. & by e. & the River of Kool ſ. ſ. w. about 5 leagues from you, & the land to the weſtwards of Kilduyn is very hilly, and the River doth ſhewit ſelfe very wide open as here ſtandeth pourtrayed.

The River of Kool.



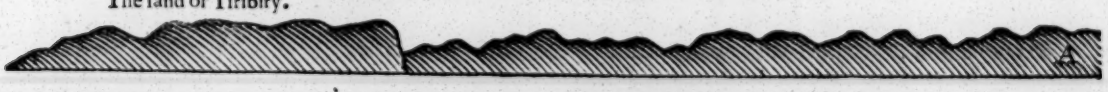
Thus ſheweth the Iſland of Kilduyn, when the weſt-poynt lyeth ſ. w. & by ſ. and the eaſt-poynt ſouth and by weſt, ſomewhat weſterly from you, the River of Kool lyeth then ſ. w. and by weſt from you, the maile land that you may ſee to the eaſtwards lyeth then ſoutheaſt and by ſouth, ſomewhat ſoutherly from you: the land of Laus you may then yet alſo ſee in the n. w.

Tiribiry. Iſland Kilduyn.



Thus ſheweth the land eaſtwards from Kilduyn, when the ſouth, or eaſt-end of Kilduyn is weſt and by north 3 leagues from you.

The land of Tiribiry.



The Iſland Kilduyn.



The Iſland of Kilduyn and Tiribiry ſhew thus, when as you ſayle alongſt by them foure leagues from land, about halfe wayes betwixt both, neareſt to Tiribiry, as is pourtrayed in theſe two Figures here above, the AA one to the other.

The Land of Tiribiry.



The Iſland Kilduyn.



In this forme ſheweth the land of Tiribiry, when you ſayle alongſt by it, being 4 or 5 leagues from it, and eleven or twelve leagues from Kilduyn.

The

RVSSEN

Catinoes

Pehtza

Den Blaeuwen ofte Grauwen hoeck

Eylanden van Podesprake

Karrosska

Mysmo

Monies

C. Pentecost

C. Bona fortuna

Mezeensche Golfe

L. Ampras

de Eylanden van Lombascho na 't leven ontworpen.

Pascaerte van de Mont van de
WITTE ZEE,
tot aen de Rivier van Archangel.
't Amsterdam,
By Iacob Theunisz. op 't water in de Loots-man.

Duytsche mylen 15 in een graet.
Spaensche mylen 17½ in een graet.
Eng. en Fra. mylen 20 in een graet.

SWETENOES. met de eylandekens daer ontrent gelegen. nae't leven ontworpen.

Iockena

Hier leggē blinde zwylen: die met laeg water boven comen

Hier suitmen Salm

R. van Iockena

Swetenoes

d'Eylanden van Swetenoes

d'Eylanden van Swetenoes

R. van Iockena

Iockena

Swetenoes

d'Eylanden van Lombisch.

Lombisch.

R. Dimay

De drie Eylanden

C. Ordegmes

C. Bassio

L A N D T.

Colcora

Corama

25

Illand
of
Swet
noes.
Joc-
kena.
Swet
noes.

For t
fayl i
so th
Riuer
of Jo
kena.

The fifth Demonſtration,

Where in are ſeth forth

The Sea-Coaſtes of the Mouth of the White-Sea.

THE Iſlands of Swetenoes or Jockena, there are ſix in number, where of the lye alongſt the ſhoare about the ſpace of 2 leagues, the ſixth lyeth within the other, thwart of the ſouthermoſt of the five. The three northermoſt lye one by the other, as alſo the two ſouthermoſt parted aſunder from the other three, the northermoſt of al theſe Iſlands of Jockena lyeth from the point of Swetenoes due weſt 3 leagues, behinde it is good roade thwart of the ſouth-end in 5 or 6 fathom. The point of Swetenoes is a flat point lying out, to the weſtwards of it, at the end of thoſe foreſayd Iſlands, goeth in the River of Jockena, where is a great Sammon-fiſhing. When you are by Swetenoes you can ſee little perfectneſſe of theſe Iſlands, becauſe the mayne land is much higher then the Iſland.

Iſlands of Swetenoes. Jockena. Swetenoes.

He that commeth from the northwards, and is bound into Jockena, muſt runne cloſe alongſt by the ſhoare, for to get ſigt, of theſe Iſlands. Throug foure ſeverall wayes you may ſayle throug theſe Iſlands into the River of Jockena: Firſt comming from the northward, you may ſayle alongſt by the ſhoare, throug betwixt the ſhoare and the Iſlands, which you leave then all on the larboard-ſide into the River.

For to ſayl in to the River of Jockena.

The ſecond paſſe lyeth in throug betwixt the tree northermoſt & the two ſouthermoſt Iſlands, that is a broad, wide & deepe, and alſo the beſt channell of all, it lyeth ſw. and ſ.w. and by weſt from the poynt Swetenoes, and lyeth in moſt ſouth, when you ſayle in there, you muſt runne neareſt the ſouthermoſt Iſland, becauſe of a ſuncken Rock which lyeth in this channell ſomewhat of from the third Iſland, at high water you may run over it, but not at low water.

Being come within theſe Iſlands, you ſhall ſee the ſixth Iſland, which lyeth within the two ſouthermoſt, you muſt run about by it, leaving it on the larboard-ſide; When as you are then a little paſt that innermoſt Iſland, you come againſt the hig poynt, and ſayle in along amidſt the channell betwit both lands, there it is ſhoale water, to witt, 5, 4, 3, to 2 fathom & a halfe, but you may ſayle in amidſt the channell without feare, all alongſt unto the Lappiſh-houſes, where the Sammon-fiſhing is, and anchor there alſo in the middeſt of the River thereabouts lye ſome ſunken Rocks, which at low water are uncovered, where of you muſt take heed.

For to have the right knowledge of this channell, you muſt looke out for the high poynt, which lyeth at the weſt-poynt of the River, within the Iſlands, when that is behinde the fourth Iſland (to reckon of from the northwards) and the poynt of Swetenoes is northeaſt, and northeaſt & by eaſt from you, then you are rigt open before the foreſayd channell.

Betwixt the two ſouthermoſt Iſlands goeth alſo an indifferent wide channell throug where men can ſayle in, and ſo come on againſt the innermoſt Iſland, which you may ſayle about on both ſides.

Betwixt the Iſlands and the mayne land you may alſo ſayle throug, but that is a very narrow channell, men ſayle throug it, as if they ſayled in alongſt at ditch betwixt two Dykes.

For need, or if it where in extremity, you migt alſo ſayle throug at high water betwixt the northermoſt Iſland, and the ſecond, and likewiſe alſo betwixt the ſecond and the third, but if you can by any means doe better, it is not good to doe it.

Men may anchor at divers places within theſe Iſlands. Betwixt the two ſoutermoſt Iſlands, & the innermoſt Iſland, you may have roade, where you may lye ſheltred for all winds, and ſafe from Yce-drifts out of the Sea. Within the innermoſt Iſland you muſt alſo anchor over againſt it ſomewhat further in againſt the ſteepe poynt. At the Rivers mouth, on the weſt-ſhoare is a bay where you may ſaile in, & anchor ſo neare to the ſhoare as you will, in 6, 5, 4, and 3 fathom ſoft ſticking ground, there you lye ſafe Yce-drifts. You may alſo anchor on the eaſt-ſide, rigt before the ſteepe poynt, but there you lye not ſafe for Yce that commeth out of the River. The tyde here alongſt theſe Iſlands, agreeth neere with the tyde of Swetenoes, it floweth with Spring-tydes neare 2 fathom & a halfe up and downe.

Behind the poynt of Swetenoes, you may run into the bay, and anchor there for a north, n. e. and eaſt winde, there is cleane ground.

From Swetenoes to Lombaſcho, the coaſt lyeth ſ. ſ. e. 13 leagues. Under Lombaſcho men may alſo goe to anchor, but it is not there very good lying, eſpecially with great ſhippes; the ground there is not cleane, and when the wind is out of the Sea, commeth in there rowling very much. The lying of this road ſtandeth drawne out at large in the Card, with the depths ſet downe as it is at hig water and neepe tydes: the water falleth & floweth there at leaſt 2 fathom up and downe, and at Spring-tydes little leſſe then 3 fathom, or 2 fathum and an halfe. Lombaſcho.

Within the point, or in the bigt of Lombaſcho you may not anchor, there remaineth not above 3 foot water, and the ground is ſtony and foule.

To the northwards of Lombaſcho lye 5 Iſlands lying alongſt the coaſt allmoſt halfe wayes to Swetenoes.

Three leagues to the ſouthwards of Lombaſcho, lyeth a black ſteep poynt, untill that the coaſt lyeth of from Lombaſcho alſo ſ. ſ. e. but from that poynt to Orlogenes, the courſe is ſouth 9 leagues, betwixt them there is no place where men may anchor, but all alongſt a whole coaſt, cleane and ſteepe. Orlogenes.

From the poynt of Orlogenes lyeth off a Stone-riffe a ſhot off caſt peece into Sea, which falleth dry a great wayes at low water, where of men muſt take very good heed.

From Orlogenes to the River Ponnoye, it is 6 leagues, betwixt them lye three Iſlands firſt from Orlogenes to the two firſt Iſlands, the courſe is ſouth 3 leagues and from thence to Ponnoye ſ. w. and by ſouth 3 leagues. Three Iſlands.

A halfe league to the northwards off Ponnoye lyeth the third of the three Iſlands, ſo that the two and the third lye about 2 leagues aſunder.

Theſe Iſlands are much lower then the mayne land, ſo that they can hardly be ſeene or not at all, except you be by the ſhoare, thwart of them you may come neere the ſhoare in 7 fathom without danger.

Thwart of theſe three Iſlands, and Ponnoy, the Mouth of the White-Sea is at the narroweſt.

About 4 leagues thwart off to Seawards from the three Iſlans in the middeſt of the mouth lyeth a ſhoale, which is very uneven and ſtony, and at ſome places with low water commeth dry above water, it lyeth ſouth and north firſt north alongſt the Coaſt, at leaſt north and by weſt untill thwart of Lombaſcho, but there alongſt it is deepe enoug, 15 and 16 fathom. About ſ. e. from Ponnoy it is at the ſhoaleſt 7 fathom deep. You may alſo ſayle alongſt to the eaſtwards of this ſhoale into the White Sea, but there it is ſhoale water, uneven and very ſhoale. The right fareway is alongſt to the weſtwards of it, and 25 fathom deep.

Ponnoy is a River where at low water remayneth no more then 10 foot water, it floweth there with a ſpring-tyde 3 fathom up and downe, and with an ordinary tyde 15 foot.

From the three Iſlands to the Iſland Souſnowit: which men doe call the Croſſe Iſland, the courſe is ſouthweſt and by ſouth, or ar ſome doe hold ſouthweſt 10 leagues, or from Ponnoy 9 leagues. All alongſt this Coaſt men may anchor every where in eight or nine fathom, and with

with contrary winds ſtop the tydes, there goe ſtrong tydes eſpecially in the ſpring of the yeare with an Ebb.

Between the three Iſlands and the croſſe Iſland lyeth a poynt, upon which ſtand alſo three croſſes, one by the other, which men doe miſtake oftentimus for the croſſe Iſland, but it is much ſmaller to ſee to. When you doe get ſigt of that poynt, there ſheweth by it, as if there lay a ſhippe before the land with the topmaſt-ſtricke. The rigt croſſe Iſland hath upon the north end two Croſſes, and upon the ſouth end three, by all theſe markes they are eaſe to bee knowne one from the other.

Behind the Croſſe Iſland you may have road in 6 or 7 fathom, you may ſayl in behind it, as well from the northwards as from the ſouthwards, it is there cleane and cleare every where, men doe anchor, when as the great croſſe doth ſtand from them e. n. e. there is the right road.

Southeaſt and by ſouth from the three Iſlands, and Ponnoy on the Ruſſe ſide, there goeth in the Meſeens golfe, into which commeth a great River, where men may go up to Kilda, and Kolmogro, and alſoo another, upon which the Town Slowoda lyeth.

Southeaſt from Ponnoy lyeth a little Iſland in the mouth of the Meſeens golf, where you may have road under for weſterly and ſouthweſt winds.

The ſouth poynt of this golf is a low Sand-ſtrand, all grown with trees, there you may alſo ankor alongſt by the ſhoare, but cloſe by the land; if you lye ſomewhat of from the ſhoare in 9 fathom, there the ground is foule, from thence alongſt the ſhoare to the Blew poynt, it is al faire ſtrand ground.

Current in the Mouth of the White Sea.

From the Croſſe Iſland, to the blew or Gray poynt, the courſe is ſouthweſt twenty leagues. In this fareway in the mouth of the White-ſea, there goe ſometimes very ſtrong currents, eſpecially in the ſpring, through the terrible great freſhuts, of the melting of the ſnow, which falleth from both ſides into the White-ſea, and runneth through this ſtrait into the ſea, with great whirlingh and terrible riplings: It happeneth ſometimes that the current runneth there ſo terrible ſtrongh, ſo the weſtwards into the ſea, that with a reaſonable gale and full ſayls, men can doe no more but ſtem the tide, were of men muſt be mindful.

Gray-poynt.

Under the Gray poynt men may anchor on the ſouth ſide in 10, 8 or 7 fathom, there it is good lying for eaſterly windes, a northeaſt winde commeth from the poynt, the ground is there reſonable good, but not the cleaneſt.

From the Gray poynt eaſtwards to the Meſeens Golf the coaſt is all faire ſand-ſtrand, whith ſome bancks of two fathom and an halfe, and three fathom along the ſhoare, not farre without the land, where ſometimes the current fallet over with great riplings.

From the blew poynt to the River of Arch-Angell, the courſe is ſouth and by weſt 14 leagues. When you ſayle ſo towards the Rivers, you ſhall then firſt eſpy the land a good wayes to the weſtwards of S. Nicholas, it arriſeth in a long ſtrake, and then there riſet more land towards the River, as if it where a round Iſland, afterwards you ſhall ſee the ſteeple of S. Nicolas, when that ſtandeth ſouth & by weſt and ſ. ſ. w. from you, then you are open before the mouth of the Rivier of Arch-Angell.

Candenoes.

The cape of Candenoes and Orlogenes lye n. e. & ſ. w. 67 leagues aſunder. The poynt of Candenoes is very eaſy to be knouwe, there ſtand 5 great croſſes upon it for markes. When as you fall with it, you may very well perceive, that the land falleth away, on the one ſide to the ſouthweſt, towards the White Sea, and ſoutheaſt on the other ſide.

Morſonowits.

About 13 leagues to the eaſtwards of the cape de Candenoes lyeth an Iſland, called Morſonowits, to the eaſtwards of it goeth a great Baye into the land, but it is very ſhoale water, with many ſhoales & dwaelgrounds. It hath here to fore happened, that ſome ſhips have beene here loſt, thincking that they runne into the mouth of the white Sea, for it agreeth very neare with the courſe, and alſo with the heigt of the White Sea, but it is eaſy to be know by the land, and to diſcerne one from the other, for the Ruſſe coaſt to the eaſtwards of Candenoes is altogether a land with Sand-hills, and a flat ſtrand, but the coaſt of Lapland is hig and hilly. In this Bay goeth a Rivier through the land, where you can come through with Lodges into the White Sea.

Thwart off this Baye, about 26 leagues eaſt, & eaſt & by ſouth from Candenoes lyeth the Iſland of Calgoya, being 13 leagues longh, you may ſayle round about it, but upon the ſouth ſide runneth a great riffe alongſt the land: they that come from the eaſtwards muſt avoyd it, for it is faſt to the weſt end off the Iſland. Upon this Iſland are great ſtore of Geeſe, which in the Sommer are altogether bare, or naked, with out any feathers, which ſit and broad upon one egge, which they have lyingh under them, & ſo doe hatch their young one which are there in ſuch aboundance, that the Ruſſes doe come there a ſhoare with their Lodges, and lay a deele or borde upon the land, and drive the Geeſe with ſtaves into their boats or Lodges, in ſuch aboundance that they ſalt them into Barrels, in great aboundance. Col-goya.

From Candenoes to the Iſland Tuſſara, it is eaſt ſoutheaſt 42 leagues, betwixt them both goeth in the foreſayd Baye. By weſt Tuſſara lyeth the poynt off Swelgenoes. Tuſſara. Swelge out.

From Tuſſara to the River of Colcova, the courſe is eaſt 7 leagues, which is a good River, being 12 foot deepe, but there is no other trade, but that the Ruſſes doe come there from Colmogro and S. Nicholas with Lodges, for to trade there, and to barter heirwares there for Skins and other wares. Colcova.

Seven leagues to the eaſtwards of the River of Colcova, lyeth the River of Pitſana, there is but 6 foot water, and is an unknowne place, but a little to the weſtwards of it lyeth a ſhoale, which you muſt avoyd: Oliver Bruneel in his voyage from Nova Zembla come on ground there. Pitſana.

About 13 leagues to the eaſtwards of Pitſana lyeth the river of Pitſora, which lyeth in ſouth ſoutheaſt by the eaſt poynt, and hath 12 foot water, the land is there low with Sand-hills, & upon the weſt ſide ſtandeth a Pack-houſe wire ſome croſſes. When you come within the River, you muſt edge up weſtwards towards the Pack-houſe, & anchor therein 3 or 4 fathom, there is a great Haff, or broad water. You muſt avoyd the eaſt ſide of the River, which is full of Sands and bancks. The little towne of Pitſora lyeth about five and thirty leagues within the land, there is great aboundance of coſtly Skinnes and Chriſtall. Pitſora.

Betwixt Pitſora and Waygats lyeth Olrgyn, and without the Land lye two rocks or little Iſlands, the one called Orangien, and the other Grave Maurice, you may anchor under them in 6 or 7 fathom. The ſouthermoſt ſhoteth of a little riffe, but you may ſound it wel in 3 fathom. Olrgyn.

To the eaſtwards & to the weſtwards of theſe two little Iſlands is a great Bay, where it is ſhoale water, the land runneth there round to the poynt of Pitſora, al alongſt in a Bay off from Pitſora unto the Waygats. It is from Pitſora to Waygats n. e. and by eaſt 38 or 40 leagues.

Waygats, which is alſo called the Straite of Naſſowe, is a Straite where men may ſayle through into the Tartariſh Sea, it lyeth in firſt about eaſt afterwards n. e. through about 8 or 9 leagues, about halfe wayes through lyeth an Iſland, which you may ſayle about o. both ſides. A little bay within the poynt, on the north-ſide is a faire Baye, which you may ſayle into ſo deepe as you will, in 5, 4 and 3 fathom, good ſtickingh ground, alongſt by the eaſt ſhoare is the deepeſt water, there you ſhall lye ſheltered for all windes and Yce-drifts. Way-gats. Traya bay.

Through this narrow or Strait, hath beene divers time attempted, or under taken, for to diſcover, and to finde a way, for to paſſe alonghſt to the northwards of Tartaria, unto the rich Kingdomers of Cathay & China, and ſo furth to the Molucques, but in vaine becauſe of the terrible Yce that remaineth there the whole yeare through, & can never ſmelt, by reaſon of the continuall cold.

From the eaſt end of the Straite Wygats to Baye of Oby it is e. ſ. e. and ſ. e. and by eaſt forty leagues. To the eaſtwards of it that land lyeth forth n. e. forty leagues more, to the two Rivers, and then yet ſo forth alongſt n. e. but how far it yet unknowe. Oby.

The weſt coaſt of Nova Zembla lyeth to the northwards off from Waygats to Coſtintſnick n. n. w. about three and fifty leagues. To the northwards of it the land falleth away, about north and by eaſt to the poynt of Langenes Nova Zembla.

or



Duytſche mylen 15 in een graet

Spaenſche mylen 17½ in een graet

Eng. en Fra. mylen 20 in een graet

Ombay

Kandalox

Kemulje

Kiolit

R V S S I A

De Blauwen ofte Grauwen hoeck

Archangel

Nieuwe dijck

Eylanden van Solofsche

Novegroe

Dwina fl.

Nicolas dijck

S. Nicolas

Warnga

Chaftin

Vischer Eylandt

Calcarava

W I T T E

Z E E

I. Soloski

C. Kiegt

Zalotzza

L A P P I A

Caerte van

ARCHANGEL

ofte de Rivier de Duina, soo wel van 't Nieuwe als 't Oude Diep.

't Amsterdam,

By Iacob Theunisz. op 't water in de Lootsman.

Archangel ofte S. Michiel

Somerodan Eyl.

Solnebal

Duina stu.

Cruys eylant

De groene hancken

De Eylanden van

Duytsche mylen 15 in een graet-

Spaensche mylen 17½ in een graet-

Eng. en Fra. mylen 20 in een graet-

Noorwe

Sinds Rack

Binnen Vosch

Podesemske

Wachtmuys

Loobmans hoys

S. Nicolaes

S. Nicolaes dyt

't Berghiez

't Vischers Eyland

24

or the States-poynt, further n. n. e. n. e. and e. n. e. to the Iſland of Orangien, the northermoſt part of Nova Zembla, in the heigt of 77 degrees and an halfe.

Of the Tydes and Courſes of the Streames about theſe foreſayd places.

At Swetenoes a ſouth and north Moone maketh high water.

Alongſt the Coaſtes to the eaſtwards of the North-Cape, the floods come of the northweſt & north northweſt, & run ſo alongſt the Coaſts or Lapland, unto Orlogonoſe.

At the three Iſlands a ſ. w. and n. e. Moon maketh high water.

At Katſnoſe-poynt and eaſt & weſt Moon maketh the higheſt water.

Before Podeſſemske & S. Nicholas an eaſt & by ſouth & weſt and by north Moon maketh the higheſt water.

At the Iſland of Nova Zembla a ſoutheaſt Moone maketh high water.

From Orlogenes & the three Iſland, the flood falleth into the mouth of the White Sea, towards the graye Poynt of Catſnoſe about ſouth ſouthweſt & ſouthweſt & by weſt.

But about the poynt of Catſnoſe, the flood falleth into the White Sea, partly towards warſiga and Ombay, and alſo towards the Podeſſemske and S. Nicholas.

To the eaſtwards of Candenoes, towards the Iſlands of Colgoyen the flood falleth e. & by ſ. alſo olongſt the ſame Iſland, & from Colgoyen towards the Waygats; the tyde falleth eaſt and weſt. Alongſt Nova Zembla, the tydes turne about Moone alongſt Ruſland, they come out of the weſt & w. n. w. betwixt Candenoes & Pitſora, & fall ſo alongſt Ruſland.

The floods towards Waygats come from Calgoyen and Nova Zembla, and fall together eaſt and by north throug the Straite of waygats towards the River of Obye, ſo that the Ebs and Floods doe keepe open the channell of Waygats, that they are oftentimes without Yce or at leaſt but with Yce that drives in ſhoales.

But to the eaſtwards of the Waygats, the floods come out of the northeaſt and fall ſo into the Obye, and into the Strait of Naſſowe, there the water riſeth and falleth, but kepet no certaine tyde.

Of the Depths and Grounds both to the Eaſtwards and Weſtwards of Waygats.

All the Coaſt alongſt of from Candenoes unto Waygats, men doe find a flat riſing ground, the moſt part ſand and ſoft ground, he that muſt ſayle there in miſty weather, muſt know that in 8 or 9 fathom depth, he is 4 or 5 leagues from the Coaſt, but when it is 30, 35 or 40 fathom, then he is farre enoug from the land. So it is alongſt Nova Zembla, & alſo over the eaſt-ſide of Waygats, but when yon come before the Strait, it will be ſhoalter by little.

How theſe Lands doe lye one from the other, and from the other Land.

From Swetenoes untill 3 leagues paſt Lombaſcho ſ. ſ. e.	16 leagues
From thence to Orlogenes ſouth	9 leagues
From Orlogenes to the three Iſland ſouth	3 leagues
From the three Iſlands to Ponnoy, ſ. w. & by ſouth	3 leagues
From the three Iſlands to the Croſſe-Iſland Souſnowits ſouthweſt, & ſ. e. and by ſouth	10 leagues
From the Croſſe-Iſland to Catſnoſe, or the grav poynt ſ. w.	20 leagues
From the Gray-poynt to the River of Archangel ſ. & by weſt	14 leagues
From the Croſſe-Iſland to Warſiga, the courſe is weſt ſouthweſt & weſt & by ſouth	24 leagues
From Orlogenes to the C. de Candenoes, the courſe is n. e.	47 leagues
From Candenoes to the Iſland Colgoye eaſt and by ſouth	26 leagues
From Candenoes to Swelgenoes ſoutheaſt and by eaſt	29 leagues
From Candenoes to the Iſland Morſonowits ſoutheaſt	13 leagues
From Candenoes to Tuſſara it is eaſt ſoutheaſt	7 leagues
From Colcoya to Pitſana eaſt and by north	7 leagues
From Pitſana to Pitſora eaſt and eaſt and by north	13 leagues
From Pitſora to Waygats, the Courſe is about northeaſt and by eaſt	38 or 40 leagues
From Catſnoſe to the Iſlands of Solofky, weſt or ſomewhat more ſoutherly	37 leagues
From Candenoes to Coſtintſarck in Nova Zembla, northeaſt and by eaſt about	83 leagues
From the eaſt-end of Colgoyen to Waygats eaſt	80 leagues
From Pitſora to the eaſt-end of Colgoyen, w. n. w.	43 leagues

Heights.

The poynt of Catſnoſe or the Graye-poynt lyeth in	65 degrees
S. Nicholas or the River of Archangell in	64 degr. 30 min.
Cape Candenoes	69 degr. 30 min.
The Iſland Colgoya in	69 degr. 10 min.
The River of Colgoya, Pitſana, and Pitſora lye in	68 degr. 30 min.
Waygats or the Straite of Naſſow lyeth in	69 degr. 43 min.

How theſe Lands doe ſhew them ſelves at Sea.



Thus ſheweth the Land betwixt Swetenoes and Orlogenes, as you ſayl alongſt by it.

The ſixth Demonſtration,

Where in are ſet forth

The Sea-Coaſtes of the whole White-Sea.

FRom the Blew-point to the River of Archangell, the courſe is ſouth and by weſt 13 leagues. When as you ſayle ſo towards the Rivers, you ſhal then firſt eſpy the land a good wayes to the weſtwards of S. Nicholas, it ariſeth in a long ſtrake, and then there riſeth more land towards the River, as if it where a round Iſland, afterwards you ſhall ſee the ſteeple of S. Nicholas, when that ſtandeth ſouth and by weſt, and ſ. ſ. w. from you, then you are open before the mouth of the River of Archangell.

For to ſayl into the river of Arch-Angell.

If you will ſayle in there, then bring the ſteeple of S. Nicholas a ſhippes length & a halfe, or two ſhippes lengths to the eaſtwards of the Croſſe ſand-hill, keepe them ſo ſtanding, & ſayle rigt with them, untill that the wood within, come midwaye, in the middlemoſt Podeſſemske, goe on then ſ. w. and by ſouth, and ſ. w. for to ſayle a weather of the tayle or ſhoale, which ſhooteth off from the eaſt-ſhoare, when as then the wood within (that is, the wood upon the northeaſt-point of the River) commeth to the ſouthermoſt of the two woods, which ſtand upon the middlemoſt Iſland or the Podeſſemske, then you are in the Mouth of the channell, right upon the ſhoaleſt of the Barre, the markes of the eaſt tayle are, when the wood commeth halfe wayes betwixt the ſouthermoſt and the middlemoſt Podeſſemske. When the poynt of the ſouthermoſt Podeſſemske is ſouth ſoutheaſt ſomewhat ſoutherly from you, then you are without the poynt of the weſt-grounds. If you bring that poynt more eaſterly from you, you can take no hurt of that poynt. When you are entred the channel, then goe, as beforeſayd, ſ. w. and by ſouth and ſ. w. untill that the ſteeple off S. Nicholas come a ſhipps length by weſt the Croſſe ſand-hill, then further take the ſounding of the weſt-ſhoare, and runne in by it, towards the foot ſtrand, and alongſt cloſe by it, without going off from it, untill that you come thwart of the white place, or ſpot, on the weſt ſhoare, about the place where it ſtandeth marked in the Card with A. Edge over then from thence eaſt and by ſouth, and e. ſ. e. right to the poynt of the Wood on the eaſt-ſhoare, and on ſ. e. in alongſt by the eaſt-land, cloſe alongſt by the ſhoare, but thwart of the two Iſlands which lye on the ſtarboard-ſide, it is a good wayes alongſt the eaſt-ſhoare ſomewhat foule and ſhoale, where of you muſt take heed. But goe all alongſt by the ſhoare, untill that you come by the firſt River on the larboard-ſide, edge then over again to the weſt-ſhoare alongſt ſ. ſ. w. untill you come to the Bight, there it is ſhoale water on the eaſt-ſide.

When you are come in the bigt, then goe on e. ſ. e. and afterwards eaſt and by ſouth towards the Stone-reach, Stone-reack.

sayl throug there amidst the channell, alongst by the buyes, which lye in the middest of the deepe, it is on both-sides of the buyes uneven and rugged.

When as you come against the Stonereach there standeth a Fishers house upon the west shoare, by the little River that runneth into the land, at the northend, or west-ned of the Stonereach, thwart of that foresayd house lyet a great stone under water, which you may sayle about on both-sides, it lyeth about the middest of the fareway, as you come saylingh on, men sayle commonly about to the westwards the Stonereach, for the west-side is deepe enoug, & at some places somewhat soft ground, but the east shoare is full of rocks.

When as you are past the buyes, then you must keepe of againe, somewhat from the shoare. There was wont to lye a little Island at the end of the Stonereach, but that is of late yeares altogether scowred a way with the Lee. When as you are now through the Stonereach, the course is first southeast, and afterwards southeast and by south, untill you come in the bight, then goe on east southeast & keepe yet to the west shoare, untill that you see the towne of Arch-Angell, then sayle right towards it, but avoind the point on the larboard side, for it is foule.

Arch-Angell. Kolmogro. For to sayl out of the River.

For to goe from Arch-Angell further up the River to Kolmogro it is about 12 or 13 leagues most southeast, but the River runneth upwards with many crooked Bights.

For to sayle out of the River of Arch-Angell, then run out by the foot-strand, and keepe the sounding of the west-shoare. When as you beginne to see the steeple of S. Nicholas, then bring it a ships lengt to the second or middlemost Podessemske, there lyeth a black Hommock upon the strand. The north-side of the wood within commeth then over that Hommock, then goe on northeast and by north, and north northeast, towards the Podessemskes. When as then the wood within commeth to the north-side of the southermost of the two woods, upon the middlemost Podessemske, then you are upon the shoalest of the Barre, but when the poynt of the southermost Podessemske is south southeast somewhat southerly from you, then you are at the end of all the shoales, and may goe your course through the sea, where you please, no shoales shall hinder you.

S. Nicholas. English River.

From the Barre of Podessemske, or from the River of Archangell to the roade of S. Nicholas it is foure leagues. There standeth a Beacon at the end of the Island, where the English house standeth upon, by west that beakon is the roade for the English shippes, in 6 or 7 fathom, accordingh as they lye neare or far from the shoare. The English River lyeth in there east northeast, and northeast and by east, alongst by the Cloyster of S. Nicholas, but that is so shoale a river that not ships can goe into it, men must lade them without with Lodges.

About southwest and west and by west from the barre the River of Arch-Angell lyeth the Salt-Island, upon it standet a Cloyster, and is fast to the main land. This land lyeth of from thence to the Cape de Onega, west and by north.

Warsiga.

From the Crosse-Island to Warsiga, the course is west-southwest and west by south about 24 leagues. Warsiga is a village, lying on a River, where is a Sammon-fishing, which lyeth into the northwards within the land, you cannot come into the River with shippes, there is no more then 8 or 9 foot water, but must stay without in the roade before the River, there is cleane sand-ground, without any fowle ground, so that you may anchor there without danger, so neare or farre from the shoare, as you will.

This River men doe know (when they sayle alongst the coast) by three high Hommocks, which are higer then all the other, and almost of fashion like the three hills by Bayonne in Galicia, to the northwards of it are white sand hills with trees upon them. Even by west the three foresayd Hommocks goeth in the River.

For to sayle from Warsinga to Ombay, the course is alongst by the coasts a little west, west and by north, and then west northwest, afterwards the most northwest, unto the poynt of Tauria six and thirty or seven and thirty leagues. About halfe wayes betwixt them, well so neare Warsiga as Tauria lyeth on the coast a hig bare hill, thwart of it and to the westwards of it lye some bancks, where of you must take heed.

Poynt of Tauria.

The poynt of Tauria is a high steepe poynt full of trees, to the eastwards of this land, the poynt falleth away into a great Baye farre along to the eastwards. About five leagues to the eastwards of the poynt of Tauria, lyeth a rock, a good wayes from land, which is not very great, but very ealy to be knowne, it sheweth a farre of, as if there sate a great Ape upon it, this rock the Russes call Tourie Babbe, that is to say, Grand-Mother of the poynt.

Tourie Babbe.

Within that Rock in that foresayd Baye it is all shoale water, uneven and foule ground, where you may not anchor for westerly and northerly winds, somewhat to the northwards of the poynt in the Bight, there it is shoale, but by the poynt it is deepe, there you must anchor close by the land.

Volna Ostrove.

By the west poynt lyeth the Island Volna Ostrove, by the Dutchmen called the Reeme Island. From the poynt Tauria to that Island, the course is north-northwest, two leagues.

Betwixt the Island and the land of Tauria lyeth also a little Island, betwixt these two Islands, you may (for need) sayle through with a shippe, but it is very narrow, at the northeast poynt of Ostrove is roade in thirty fathom then you lye with the shippe, (when she lyeth wended to the Island) in eight fathom, so very steepe and rising is the ground there.

Salt River.

From Volna, Ostrove, or the Reeme-Island to the Gouba, that is the salt river (where men doe lade, lying a half league by east Ombay) the course is north-northeast three leagues which lyeth in north, and north and by east, it is not very broad but deepe, at the commingh in it is in the middest foure and twenty, and five and twenty fathom, farre within, five or six fathom deepe, but there is fowle. Men doe commonly anchor a halfe league within the River, on the east side, with an anchor in the middest of the river, sixteen or eighteen fathom, and with a cable on land, there it is good lying with all winds, except with a south-southwest winde, which bloweth there open in.

Ombay

About halfe a league to the westwards of it lyeth the fresh River of Ombay, which is a so shoale and foule, that men cannot goe in there with shippe, except they be small, and also the Russes are not willingh they'd should come there; for not to spoyle their Sammon-fishing, there is great store of Sammon caught, which is carried from thence with boats to the shipps in the salt river.

From thence the coast lyeth somewhat alonghst west-southwest and then upon the northwest to Kandalax.

Kierickarick, Kargapoll.

There abouts lye also more lade places, where Sammon is caught, at Kierickarick, and Kargapoll, that lyeth southwest from Ombay, on the Corcels side.

How these Lands doe lye one from the other, and from other Lands.

From the Barre of Arch-Angell to the Salt Island southwest somewhat westerly	7 leagues
From the Salt Island to the C. Onega w. and w. and by n.	17 or 18 leagues
From the C. Onega to the Islands Solofky n. w. and by w.	20 leagues
From Warsiga unto the poynt of Tauria west and west and by north, west-northwest and northwest	37 leagues
From Cruys Island to Warsiga west southwest	24 leagues
From the poynt of Tauria to Folna Ostrove, n. n. w.	2 leagues
From Volno Ostrove to the Gouba to the eastwards of Ombay north-northeast	3 leagues
From Ombay to Kandalax northwest and by west	13 leagues
From Catsnose to the Islands of Solofky west or somewhat more southerly	37 leagues
From Catsnose to Warsiga northwest and by west	16 or 17 leagues
From Catsnose to Polongi northwest and by north	23 leagues
From the Islands of Solofky to Ombay in Lapland north	32 or 33 leagues
From Solofky to Warsiga east northeast	32 leagues
From Solofky to Pologni northeast and by east	50 leagues

Heights.

S. Nicholas or the River of Archangell is	64 degrees 30 minutes
The Island of Solofky in	65 degrees 10 minutes
Ombay in	66 degrees 45 minutes.

The

AMERI

CA

GROEN-L

Yslandt. Sou

Yslandts-hoeck

Noort cust

Hier is varsche vysch, doede Walvisch, wine voßen en varsche Salm.

Cumberr. Straet baij

C. Walsingam

Strast Davis

London Cast

Hekinsluyder strick

Ironmongers strick

Wyde baij

Stegel horck

Dyfvels hoorn

R. Rob

Briefsche hoorn

C. Dyfvelingen

Martyn Forbuschers Straet

C. Bird

Wilde baij

St. Iorus baij

C. Magdalen

Maurits baij

Staten horck

Straet Hudson

Carolinaes baij

Sir Thomas Smith eylant

Gants baij

Sir Dudleys Hoek

Sir Francis Wolsingham baij

Clapmutsen oft Nova Britten

Orangies baij

Zeelandt bighcht

Hollandse baij

Iames hoeck

Sir Charles Howards hoeck

NOVA

FRANCIA

Baij Kanops

C. de Gratiosa

Bell Ile

Dutsche mylen 15 in een graet

Spaense mylen 17½ in een graet

Eng. en Fra. mylen 20 in een graet

Paerte van
ROEN-LANDT,
Davids en Ian Maijen
ghebruyckt Hollandt en de
Schotlandt en Yrlandt
mach.

Lemaire door Gack Niemkes
opgedaen A° 1654

Lemaires Yrland ofte
Trinits Eylandt en
Ian Mayens Eylandt

Dit is alsmach Ys en groote Yssbergen

Koorts
hoogde

Noorse kust

Grim of

Langenes

Engelsche
Eylandt

Pegel

YSLANDT.

Gunbar-
Schaer

Reykenes

Vogelscherrm

Wolfsmuus

Ierro

Hitlandt

Faro

Orcades

Rona

Skye

Robel

Bus

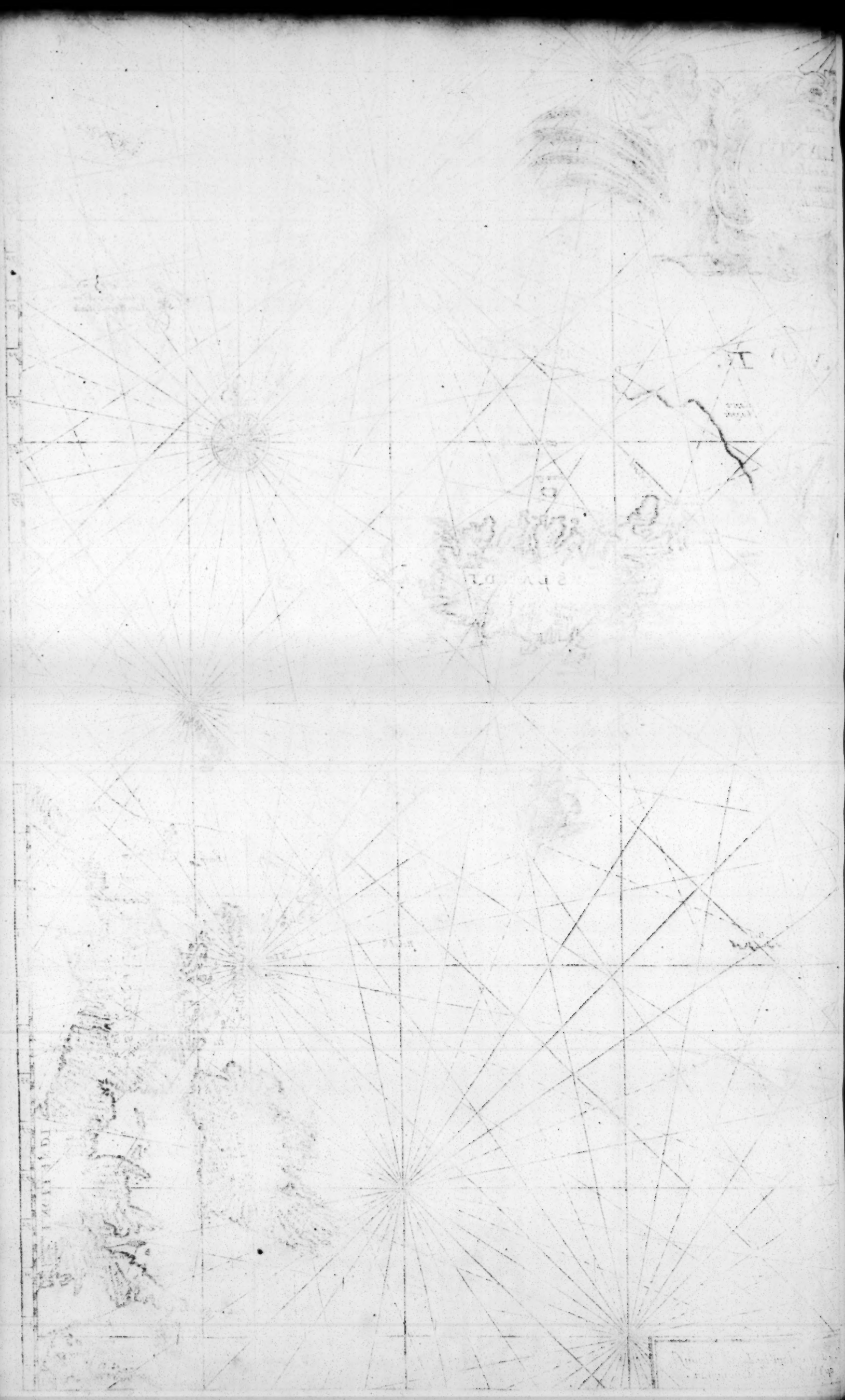
De Limmy

Ierland

Schotlandt

Engelandt

Amsterdam by Iacob Iacobsz
op t Water inde Logtsman



The third BOOK of the New

Lightning Sea Columne,

OR

SEA MIRROUR,

OF THE

EASTERNE and NORTHERN NAVIGATION.

CONTAIGNING

The Deſcription of Yce-land, Greenland, or the Strait of David: Likewiſe the Situation of John Mayens Iſland and Spitsbergen: Alſo the Situation of Candenoes Eaſtward, through Weygats to the Tartarish or Yce-Sea.

The firſt Demonſtration,

Where in is ſheweth

The Paſſages between Hitland & Yceland, & from thence to the Straits of David, or the Corner of Old Greenland, now called Statenhoeck.

How a man muſt ſayle from Hitlant to Yce-land.

FRom hence, or out of Texel to Hitland is the courſe well enough known to (allmoſt) all kinde of Mariners. But when ye will ſayle from Hitland to Yce-land, your courſe muſt be from the ſouth-end of Hitland to the ſouth-weſt-corner of Yce-land, leavingh Weſt-Mana Iſlands on your right hand: the courſe is weſt-northweſt-ward, a half ſtroack weſterly, and eaſt ſoutheaſt, a half ſtroak eaſterly, the matter of an hundred fourſcore and fifteen dutch miles.

Sayling from the ſouthweſt-corner of Yce-land, ye muſt ſayle northward on alongs the wall, the matter of 5 miles till ye come to the clift of Reykeneſſe, from thence e. ſ. e. hard underland, till ye come to the haven of Hanifioert: Ye kan ſcarcely know that other is a haven here till ye come to the end of the farewater; but ſaylingh all alongs the wal, till ye come to a blinde Rok ſtanding in the middle of the water, and a little Iſland where on there is a houſe, then ye can ſee the Bay where the road is: Ye may ſayl on eyther ſide of this blinde Rock, but rather on the north as ſouth-ſide; and ſo running inwardly till ye rigt oppoſite to the houſe, there ye have a good read and ancker-ground, of 3, 4 or 5 fathom: Here ye need fear no kinde of windes, the weſt and weſt northweſt are the worſt, but without danger, becauſe of the clifts that ſtreatches themſelves from the northwall: here ye can have good water becauſe of a ſtream that flowes through between the mountains on the northwall. The Indwellers here be of a reſonable good condition, and brings aboard fiſh, ſtockens and other commodities for a ſmall price, they would rather have linnen as money for their wares; but above all they are moſt deſirous of Burnt-wine. Ye can have here likewiſe ſheep, milck and fleſh for other wares.

A blinde Rok

Road & Ancker-ground.

The matter of three miles northward from Hanifioert runs ſeverall warmwater rivers into the Sea, landwards in, thoſe Rivers are ſo hot that if ye ſhould put a piece of fleſh on a fleſh-hook, & let it hangh in the water, it is able to boil the fleſh: but on the Sea-ſhoare the waters be lukewarm, ſo that ye may either ſwimme or bath your bodies into them.

He that would ſaile from thence, to witt, from the ſouth-weſt-corner of Yce-land to Fretum Davids, he muſt ſet his courſe weſtward ſomewhat ſoutherly, that he may reach to the corner of the land, the which corner ye can ſe when ye are the matter of 6 or 8 miles from the land: commingh thither ye can ſee the Yce which lyeth there continually the whole year through: So that in caſe ye ſhould ſet your courſe more ſouthwardly as is above mentioned, ye ſhould not attayne to the Cape. Therefore when ye ſee both the land and the Yce, ye muſt ſayle along by the Yce, which ſhall lead you into the corner of the Straits.

The Straits of David.

The Corner of the Strait lyeth juſt upon 60 grades benorth the Linie, for the Yce ſtretches himſelf according as the wall lyeth: and when ye come beſouth the Yce, about nine and fiftie grades & 25 or 30 minutes, ſometimes ſomewhat ſoutherly, ſometimes ſomewhat northerly, ſo ſhall the Yce lye north-northweſt-ward from you, a like as the wall the Straitward in lyeth, to the hight of three ſcorce three grades, and then lyeth the wall right northward, till over the threeſcorce 6 grades and thirtie minutes; and then ye come into the narrow of the Strait, which is about thirtie miles broad; till ye come to the hight of one and ſeventie grades and thirtie minutes: and then ye come in an open roome Sea lying northweſt, running round northward towards the eaſt, and from thence ſouthward again to the above mentioned narrowneſſe.

This Sea runs northward to the higt of 79 grades, where it is cloſeſt by faſt land, with a great many bayes and Rivers moſt part full of Yce, which becauſe of the ebbingh ground falling of waters is driven through the narrowneſſe of the Strait into the North-Sea and from thence unto the Coaſts of Terra Nova, in the great bay of St. Laurence, after and on the weſt-ſide of Terra Nova.

Terra Nova.

The Inhabitants of this land on both ſides of the Strait, are Heatheus & Wilde Men: and therefore are not to be truſted, throug they give neverſo many tokens of Friendſhip. Whatſoever they handle or change with you, they lay it on the oares where with they row their Canoe, they truſt no bodie, and therefore are not to be truſteſt, for as a foreſaid they lay their wares on their oares and ſo delivers it to you. When ye are reſolved toe goe on land, ye muſt be well armed, and eſpecially with Muſquets, for as for Swords or Sabels they care not, becauſe they can reach you with their Arrowes, or with their Slinges ere ye can come near them; but if ye happen to kill one or two of them with Muſquet bullots, the reſt ſhould in haſte flee from you to their Mountains where they have their abode.

Staten-hoeck. This land from old Green-land benorth Yce-land lying ſouthward to the Cape or Staten-hoeck, & from that corner all along to Fretum Davids, and all round about that inward Sea, is it altogether a faſt land, & joyned to America, untill the north and n. e. of Yceland; yet is the opinion of ſome men, (as likewiſe of my ſelf) that it is joyned to Spits-bergen, and that becauſe of the Rivers which come from the north ſouth Spits-bergen, which Rivers ye can perceive when ye have the higt of fourſcorce and three grades, and becauſe they Ebbe towards the north, it may be beleeved that there is paſſage, but as yet unknown.

To know the Land.

Ye can ſee the Southeaſt-Coaſt of Green-land when ye are the matter of ſix or eight miles from it; and when ye ſee it, then ye are hard by the Yce.

Of the Tydes and flowing of Streams.

The Streams or Rivers come out of the North from Spits-bergen, and floweth alongs Green-land.

They ebbe on fourſcore and three grades towards the North, and floweth towards the South.

Situation and Courſes.

From the South-end of Hitland to the ſouthweſt-corner of Yce-land Weſt northweſt, and a half ſtroke weſt-liet 195 miles
From the ſouthweſt-corner of Yce-land, to the clift of Reykeniſſe northward 5 miles
From the Clift of Reykeneſſe to the Haven of Hanifioert eaſt ſoutheaſt 12 miles
From the ſouthweſt-corner of Yceland to Staten-hoeck, weſt ſouthweſt. ſomewhat weſterly 186 miles

Of the Heights of theſe Lands.

The Cape of Old-Green-land or Staten-hoeck lyeth on 60 grades
The ſouthweſt-corner of Yce-Land lyeth on 74 grades & 5 minutes
The Mouth of the Strait of David lyeth on 71 grades.

The ſecond Demonſtration.

Which Containeth the Deſcription of

JOHN MAYENS ISLAND.

IOhn Mayens Iſland lyeth from Hitland northward, accordingh to the common Hollands Compas, or as other ſay n. n. w. upon the half ſtroke: yet it is better to ſayl ſomewhat weſtlyer as to fall a little eaſtly, becauſe they muſt be on the weſtſide of the Neering, for if they fall eaſterly then they muſt needs ſayl about the north of the ſame, where they have to great calmneſſe, and ſometimes whirlwindes, that fall in a ſudden from the Mountain called the Beeren-bergh, or in Engliſh called the Bears-Mountain.

In the Spring of the year on the eaſt-ſide of this Iſland is not ſo much Yce as on the north-ſide. For the Sea on the north-ſide, (which is never above 10 miles navigable) is in the Spring commonly alwayes frozen.

The winde blowes there commonly out of the ſ. w. both harder and oftner as out of any other place.

In the South-bay a ſ. ſ. e. and a n. n. w. Moone (according to the common Compas) makes a full Sea. The floud flowes there from the ſouth towards the north, and Ebbes contrarily.

The firſt day of Auguſt (at the north-end of the a foreſaid Iſland) did the Sun riſe in the n. e. with the one half of this bodie under, and the other half above the Horizon: and the laſt day of July was he wholy under.

The Bears-Mountain. On the North-end of this Iſland is a very hig Mountain commonly called the Bears-Mountain, the which, if ye behold it from the north, ſeemeth to be cloven, but if ye behold it from the eaſt or weſt-ſide, it ſeemeth round, falling as it where ſmoothly downward, except at the north-eaſt-corner, where it ſtretcheth it ſelf outward.

The North-Corner is hillie and rough, it ſeemes ſomewhat low becauſe of the hig ground that lyeth about it: From thence the matter of a half mile ſouthward the coaſt is hillie, ſtay and ſhallow, ſo far from the wall as a little canon can carry, is it about 20 fathoms deep: a little more ſouthwards is there a ſmall foot-ſtrand of ſtonie ground, ſo that upon ſome places ye could make ſhift to bring your chaloup or boat, and this ſtretches it ſelf the matter of a mile in the length ſouthward.

In or upon this ſtrand there are three Yce-hills high and ſtay, thoſe are congealed of the ſnow-water, which fals in the ſommertime from the top of the Mountain, two of them lyes near to the North-end of the ſhoare. The three Yce-hills.

From thence further ſouthwards is the wal for the matter of a quarter of a mile (or ſcarſce ſo much) hilly and ſtay, as it is at the north-end, and from thence is there another ſhoare about a half a mile in the length, there on likewiſe can ye bring your Boat.

From thence come we to the Southeaſt-Corner of the Bear-Mountain, which is likewiſe hilly and ſtay as the a foreſayd wall, ſo that is impoſſible to come upon it, at ſomeme places higher, other ſome lower, oneven, it is commonly 25 or 30 fathoms high from the wather, and within goeth it in ſome place ſomewhat ſtay upward to the Bears-Mountain.

At this Corner lye ſome little Rocks ſeparated from the land, whereon are a great many of ſeverall ſorts of fowls, ye can row to and about theſe Rocks, with your Boat: A little about this Corner there lye likewiſe ſuch Rocks with out the wall, between theſe Rocks there is a commodious haven, with a little Sand-bay, where ye can eaſily bring up your Boat whileſt ye Anker; there ye are freed from the Sea, for it is there commonly calm water, althoug it ſtorms without. Ye cannot perceive that there is a haven there til ye he within the Rocks. From theſe Rocks weſtward about a ſhort mile, is the wall ſtay & rockie as before, yet not ſo hig, al alongs the Coaſt is there many ſharp rocks, ſtanding as it where out of the wal. From the land off, as well by the ſhoare as by the ſtay wall, the matter of a Muſquet-ſhot, or thereabout ye have water ſome 60 fathoms deep. Divers Rocks. Sand-bay.

When ye have paſſed this ſtay ſhoare, then ye come to a flat ground of black ſand, which is about a mile in length, about a little Canon-ſhot from the wall, ye have ſix fathoms water, with black ſand on the ground, this ſtrand is commonly called the great Houth-Bay, or Wood-Bay, becauſe there is ſometimes found much old broken wood: Hereby landwards in lyes divers flat hills of black earth and few ſtones, here is the land at his ſmaleſt, for being on the top of this hill, and ſhips ſayling on every ſide of it, ye could make them hear your voyce both at once. The great Houth-Bay. The Black-hill.

Weſt-

Weſtward from the end of this great Hout-bay, where the land lyeth ſ. w. to the ſouth, there is another Rockie wall, a like to the foreſayd, ſo far as a piece of Canon can carry, further have ye another flat, called the ſmall Hout-bay, with an even ſhoare like to the firſt.

The ſmall Hout-bay.

A quarter of a mile Seawards in, by the South-end of that ſmal Houtbay, there lyet a rok, which to look to ſemet to be a ſhip with topſayls up: hereabouts is it flat water.

A rock like a ſhip with topſails

Southward from this ſmall Hout-bay there lye many Rocks, and hills in the Sea, there is likewiſe a ſtay rockie wall; between this wall and the rocks is a paſſage that runs in Sea ſouth ſoutheaſt on, called the Bears-gat, where within 4 fathoms ye have ſtonie ground. Ships could come in to ly there, but there is no ancker-ground.

The Bears-gat.

A mile and a half ſouthweſt ſoutherly from the aforeſayd Rock that ſeemeth like to be a ſhip, there lyeth another Rock of that ſame faſhion, yet not ſo ſharp above as the other, this lyet but a ſmall canon-ſhot from the land: beſides this there are many other little Rocks (whereon are abundance of fowls) ſtanding out in a corner: between this and the Bears-gat is the wall roug and Rockie, & ſometimes here and there ſmall foot-ſtrands whereon ye can not come with your boat: and from thence begins the land to be higher and ſtonier, for from the aforeſayd corner Seawards in it is Rockie and ſtonie, and landwards in full of hills and mountains; in time of needye may bring your boat to the foot of the hills: half a mile further there lyeth more ſuch Rocks, ſtayly deſcendingh to the water; alongh the ſhoare, ſo far from land as a ſmall piece of canon can carrie, it is commonly 15 or 16 fathoms deep.

A Stone.

The matter of 3 miles ſouth and to eaſtwards, from the ſouth or Weſt-corner, there lyeth a Stone, which at the undeepeſt hath about 11 foot of water, which ſtone in circuit, is about ſo bigh as man can throw a ſmall-ſtone.

Lucas Bouwenſon from Delfs-haven hath with calm water broke the ruder of this ſhip there on; about this ſtone goeth commonly a hollow water.

The length of half a mile northeaſtward from this ſtone ye have uneven ground, for caſtingh your ſound-lead one time ye can have but 7 fathoms, and at the other timo ye can ſound 35: From this ſtone towards the land falleth the ground by degrees of to depth of 36 fathoms and deeper, yea ſo far from the wall as a ſmall peece of canon can carrie, ye have fourſcore fathoms water, with ſoft clayground: but about the Stone the ground is ſtonie and ſandie.

Claes Dirckſen Seyn from Wijck-wrote in the year after our redemption 1616, that about 11 or 12 miles ſouth-ſoutheaſt from the South-Corner of the Iſland, he found 35 or 36 fathoms, with black moule ſand, and ſmall ſtones.

John Sybrantſon Pael-man writes, that ſoutheaſtward from the ſoutheaſt-corner of the Iſland about 2 miles he found Rockie ground, my neighbour had once 60, and y had but 30 fathoms, ſo that it is very uneven there.

The ſeven or five Rocks. Holmken.

About a quarter of a mile northweſtward from the South-corner, thereſtands a Rock high above water, with ſundrie other little Rocks by him, which are commonly called the 7 or 5 Rocks, when ye come from the north ye can eaſily paſſe through between them: hard by the land there lyeth a Holmken little above water.

From theſe 7 or 5 Rocks till near under the wall dryeth it up from 30 to 5 fathoms.

The Bocht of Guinea.

From the ſouthwall north-northweſt a ſhort mile the land falleth out with a Corner, commonly called the Low-ſouth-corner, on the ſhoare is it low, and there lyeth the ſloops thats kee watch.

Between the South-corner and this corner there are ſeverall infalls, with a low ſhoare, commodious for boats to come by, in the infalls is it ſandie-ground, 6 or 7 fathoms deep.

The Bocht of Guinea.

Between this & the South-corner lye ſome ſmall Rocks, ſome above & ſome under water: from thence about two canon-ſhot is the land ſomewhat croocked to an infall, which is commonly called, the Bocht of Guinea.

South-bay.

From this foreſayd Bocht northeaſt northward about half mile, come ye into the South-bay, a leſſer Bocht as the aforeſayd, there where wont to ſtand ten tents in this bay, for the handling of Fiſh-oil, but in one year the Sea waſht away three tens, thirteen chaloups, tus & oily-veſſels, pertainlingh to the Chamber of Amſterdam, it waſht away licke-wiſe moſt of the ground whereon they ſtood, wherefore thoſe from Amſterdam did delve a large peece of ground the ſommer followingh, whereon they have ſet two tents.

A fore this Bay ye have from nine to fifteen and ſo forth to eighteen fathoms, with black ſandie-ground, a little further of ye have five and twentie, yea thirtie fathoms, with ſhort ſtonie ground; and again ſo far as a ſmall piece of Canon can reach ye have four ſcore fathoms, and ſoft ground.

Between the Bocht of Guinea and the South-bay the wall is very ſtay, ſtoine, and Rockie: when ye ly on fifteen-fathom afore this Sout-bay, then ye can ſee throug between the land and the Fowlie-rock, or Vogel-klip.

Fowlie rock. Red-hill.

Some two Canon-ſhot from this Fowlie-rock into the Bocht there lyeth a ſmall Rock; and on land there is a Red-hill; in the a foreſayd Bocht there lyeth a channell, whereon ye may lay four or five chaloups.

The Hoep-ſtocks-Bay.

The matter of a mile northeaſtward from the South-bay, ye ſhall finde a little Corner, then ye have a gate or entry where ye can row throug from the mountains into a Kolck or depth, there ye have ſo much room as to lay ſome 20 chaloups on; and it is very convenient for the waytingh on whales: this is called of Sea men the Hoepſtocks-Bay.

The Runſen.

A large canon-ſhot from this Hoepſtocks-Bay ye ſhall finde a Corner where there many ſmall Rocks, (which are called the Rudſen) from thence to the Red-hill the wall is Rockie and Stonie.

Wal-ruſh gate. North-Bay.

The matter of a mile northeaſt northerlye from the a foreſayd Rudſen, there is an out lying Corner, commonly called the Walruſh-gate, without or rather at the which there lyeth the Briellish-ſteepel, between theſe twoth lead hath a great infall, which is commonly called Northbay, and is the moſt convenient place of alle for the handling of fiſh-olie.

Wood-Bay.

A quarter of a mile from theſe Rudſen or ſmall Rocks towards the Bocht, thereis a flat place, which is called the Wood-bay, becauſe of this flat the land lyeth high, this flat is a ſhort quarter of a mile large, between this and the Walruſh-gate there lyeth a great flat Channell, whereon lye all the tents and kettles of the chambers of Holland and Zeeland: this Bocht hath a flat ſandye-ground, where the ſhips may lye at anker on 15 or 16 fathoms water, about a canon-ſhot from land. In the fore-ſommer the ſhips lye near on land within the Bay on 8 or 9 fathoms water.

From the Brielliſh-ſteepel the land lyeth eaſtward up, and hath for a mile flat ſtrand, which is very convenient for chaloups to keep wach: the a foreſayd corner of the Walruſh-gate is a very high & ſtay towards the Sea; at the end of the a foreſayd mile, ye finde nothing but Rockie ſtay and without any ſtrand, (& which is wort to be made mention of) a canon-ſhot from thence ye have a ſtone, on mention of a ſteepel.

The Mary-Mus-Bay.

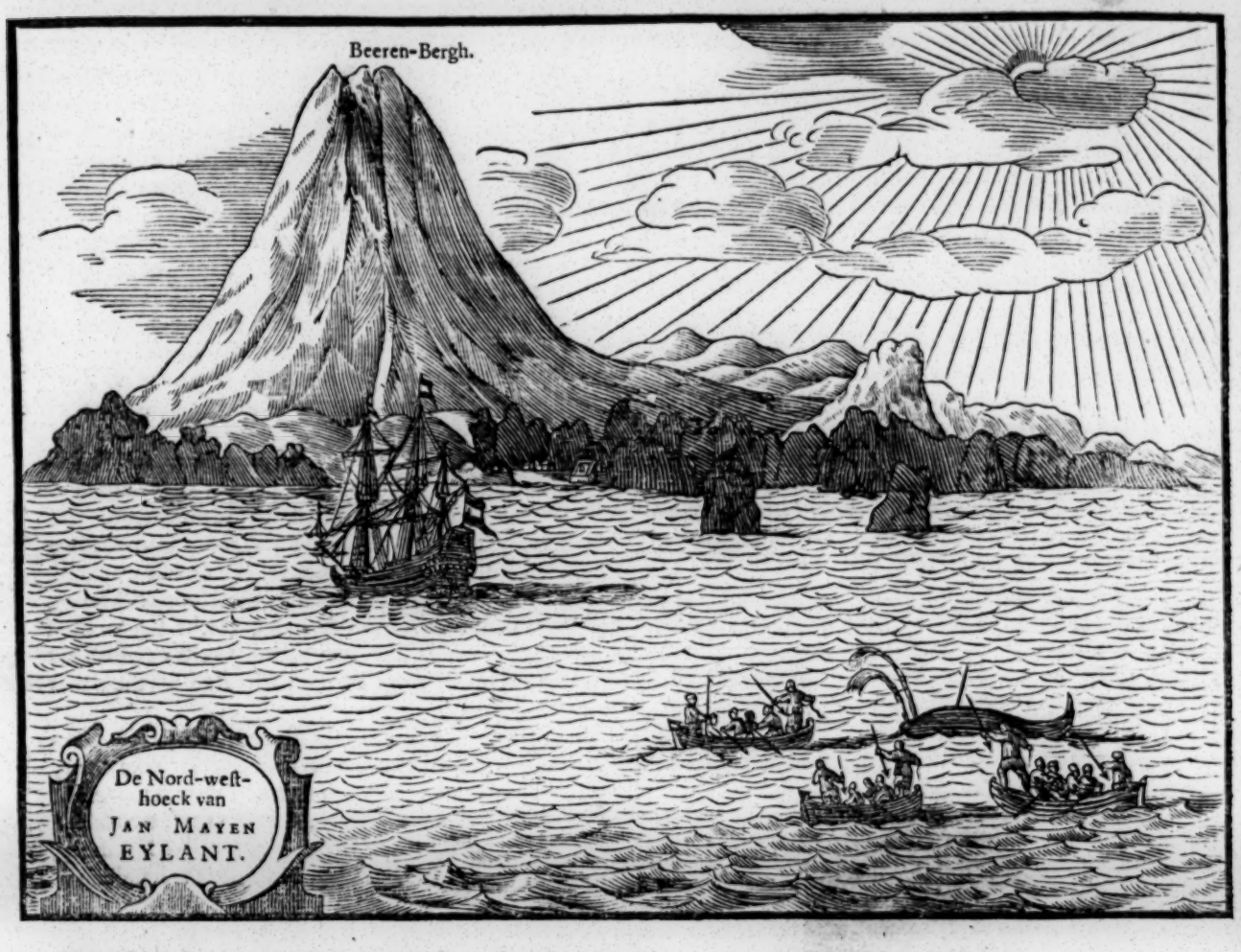
At the end of this a foreſayd land a little foreby the ſteeple, there ye finde a little infall, which is called Mary-Mus-bay, becauſe that Mary-Mus from Rotterdam, of happye memorye, was the firſt that everſent a ſhip there to boyle olye: there is a very commondious ancker-ground; for about a canon ſhot from land, ye have 5, 6 or 8 fathoms water: and a far way Seawards in ye have ſmooth water, likewiſe ye have a ſhoare fit for all kinde of commodites uſeable for boylingh of fiſh.

A little landwards in ye have a Pool, where out ye can take Fiſh, yea, ye can bringh your boat from ſhoare into that ſame Pool.

From the Eaſt-corner of Mary-Mus-bay the foot of the mountains ſtreatches themſelves in Sea, very ſtay and high towards the weſt-ſtrand or ſhoar.

From the foot of theſe mountains, ſettingh your courſe northeaſt northerly for the matter of a quarter of a mile, ye have a flat ſhoar, where aforetimes there hath ſtood a croſſe on a grave. Between thoſe two the land hath a great infall; & hard under wall a ſtonie ground, the wall of it ſelf is flat and ſandye, ſo that a man might have occaſion on ſeverall places to boyl Fiſh.

The NORTHWEST-CORNER.



BEſides this a foreſaid bay two Muſquet-ſhot from land, ye have nine fathoms depth; off-ſayling ground to the ſevent fathom: about a Muſquet-ſhot further ye have good ſingle ſandy ground: but when ye come to have 25, thirtie or fiftie fathoms, there ye have foul ſtonie ground, which continueth till ye come ſo far in Sea, that ye can ſee both the Corners of the land: half a mile from the land ye looſe the ſtonie-ground; again hard under land, where ye can ſee the ground, it is ſtonie.

From the Croſſe to the next Yce-hill, it is over all flat ſandy ground, and in ſome places ſtonie, it is about half a mile broad, and ſome places are fit to lay your boats on that keeps watch, but it is not convenient for anckeringh of ſhips, for deepneſſe.

From the Northweſt-Corner towards the eaſt ye have a ſtonie and ſtay wall, a quarter of a mile in length, where ye finde a convenient little by, whereon ye may ſet one kettle to boil fiſh in: but becauſe a ſhort Canon-ſhot from thence it is well 300 fathom deep, therefore it is inconvenient for ſhips to ly there.

From thence runs the wall, well a half mile in length eaſtwarly up; at the end where of there is a little bay, where ye could ſet a kettle and lay a boat on watch, but a ſhort canon ſhot from the land, it is well 300 fathoms deep.

From thence to the North-Corner, which is half a mile, on the ſhoar it is ſtonie, knottie and ſtay.

On the north-ſide of this Iſland the yce lyes ſometimes ſo near, that if ye would ſayl from hence to Spits-Bergen, ye ſhoulde forc'd to ſet you courſe 40, 45, yea ſometimes 50 miles, northerly about; and ſometimes ye can ſayl right northwards from this Iſland well 45 or 50 miles, to the heigth of 75 gra. norther bredth, before ye can ſee any yce.

By fair and clear whether ye can ſee the Bears-mountain when ye are thirtie miles from it. Now adayes there are not ſo many fiſh taken about this Iſland as was wont, becauſe they run now more towords the north then they uſed to do.

At Jhon Mayens Iſland the veriation is a ſtroke & a half northweſtward.

Of the Tydes and flowing of Streams.

In the South-bay a ſouth ſoutheaſt and north northweſt Moon, according to the Hollands Compas makes high Water: The ſtoud flows from the ſouth running northwards, & ebbes contrarily.

Situation and Courſes.

From Hitland to John Mayens Iſland, n. & n. w. at the half ſtroke 160 m.
From the north-end of John Maynes Iſland, to the North-cape, eaſt ſomewhat northerly, but little 170 miles
From the north-end of John Mayens Iſland, to the ſouthermoſt-poynt of Spitsbergen, weſt northweſt, half a ſtroke northerly 165 miles
From the ſouth-end of John Mayens Iſland, to the Iſland Gryp, on the Lier of Dronten, northweſt, a little more northerly 147 miles
From the ſouth-end of John Mayens Iſland, to Langenes, the northermoſt Corner of Yce-land, ſouthweſt half a ſtroke weſtward 111 miles
From the North-Corner to the South-Corner, n. e. & n. e. eaſterlye 9 m.
From the North-Corner to the Southeaſt-Corner of the little Sandiebay, northeaſt northerly, and north northeaſt 2 miles and a half
From the little Sandiebay to the Eyer-Iſland, or the beginningh of the great Hout-bay, eaſt ſoutherly 4½ of a miie
From the Eyer-Iſland to the firſt Rock that is like to a ſhip with her ſayls, ſouthward weſterlye 1½ miie
From the firſt Rock to the other Rock which is alſo like to a ſhip, weſt & a little ſoutherly 1¼ mile
From this ſecond Rock to the South-Corner, ſouthweſt 2¾ mile
From the South-Corner to the five or ſeven Rocks, northweſt ¾ mile
From the South-Corner to the low South-Corner or the Hoyberg, the courſe is north 1 mile
From the Hoyberg to the South-bay, northeaſt 1¼ mile
From the Fowlie Rock to the Hoepſtock-bay, northeaſt 1 mile
From the Fowlie Rock to the Rudſen northeaſt ſcarce 1¼ mile
From the Rudſen to the Brieliſh-Steepel northeaſt, northerlye 1 mile
From the Brieliſh-Steepel to Marie-Mus-Bay, eaſt, northerlye 1¼ mile
From Marie-Mus-Bay to Muyes ſecond Croſſe-Corner, northeaſt 1¼ mile
From Muyens Croſſe-Corner to the North-Corner, eaſt 2½ miles

Heights.

The North-Corner lyeth on the high of 71 grades 23 minutes
The South-Corner lyeth on the hight of 71 grades.

Thus

Duytsche mylen 15 in een graet
Spaensche mylen 17½ in een graet
Eng.en Fra. mylen 20 in een graet

Noordhoeck
Oosthoeck
1e Ysbergh
2e Ysbergh
3e Ysbergh
Beeren bergh
Clyne sand bay
Groote
Mont bay
Cleyne Mont bay
Klip als een Seyl van een Schip
Klip als een Seyl
Ruysen
Roe bergh
Suyd bay
Vogelklip
Duyfbeck
Duyfbeck met 2 Bergen
Duyfbeck
Mayens 2e Cruys hoeck
Meynste Ysbergh
3e Cruys
Mary mas bay
Eyer Eylandt of Vogel Clippen
Brielsche toren
Walrus gat
Noorder oste Engelsche bay
Mont bay
Roe bergh
Vogelklip
Bocht van Cunes
Duyfbeck met 2 Bergen
Duyfbeck
Dese ostes Seven klippen

Pas-caert van
IAN MAYEN EYLANT.
Verthoonde alle de gelegentheyt van alle bayen, inbochten, diepten en en drooghten.
t'Amsterdam by Iacob Theunisz op't water inde Lootsman.

Pas-caert van

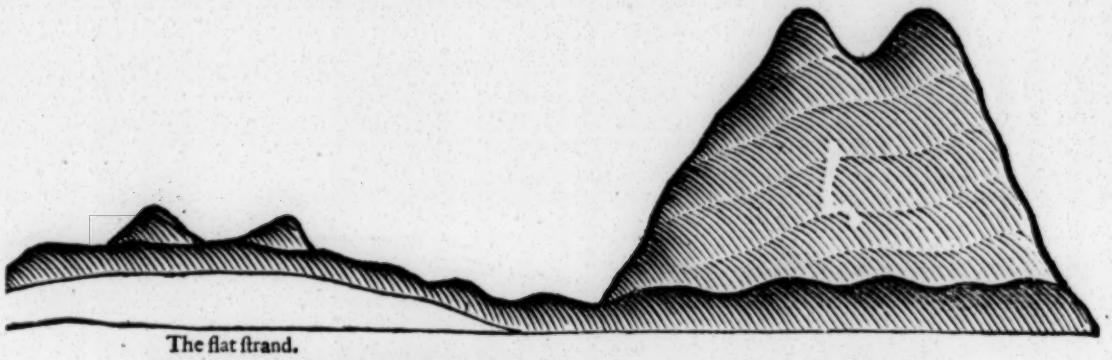
SPITSBERGEN

met alle haer Rivieren, havens, bayen, sanden en droogten.
als mede
Hoe men C. de Uytkyck op Spits-bergen van de Noord Caap en Beeren Eylandt bezeylen sal.



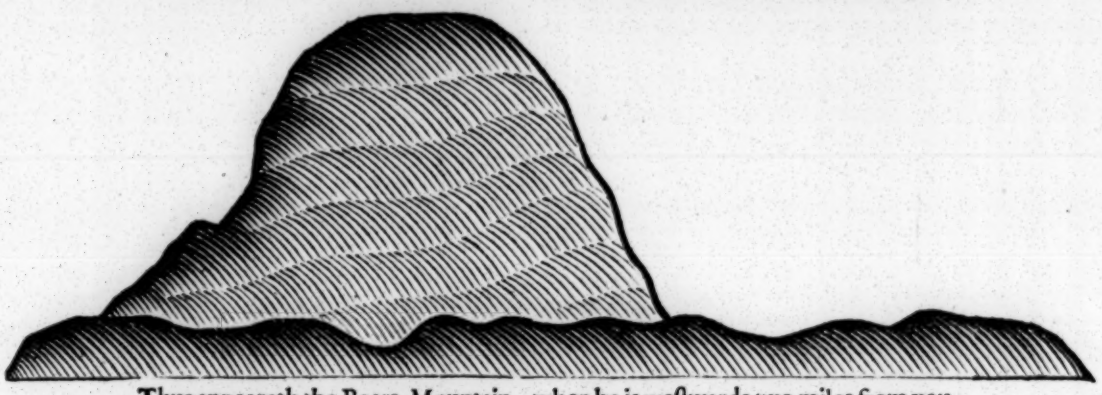


Thus appeareth the Land in your ſight when ye are on Sea.

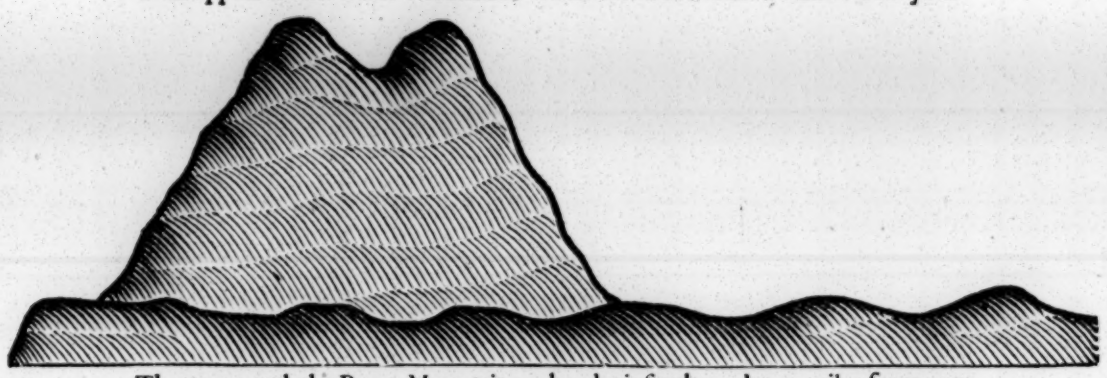


The flat ſtrand.

Thus appeareth te Bears-Mountain, when he is northward two miles from you.



Thus appeareth the Bears-Mountain, when he is weſtwards two miles from you.



Thus appeareth the Bears-Mountain, when he is ſouthwards two miles from you.

The third Demonſtration,

Contaigning

The Situation of the Bears-Iſland, the Hoopen-Iſland, as alſo of whole Spits-Bergen, for ſo much as they are northerly and eaſterly known as yet.

The Bears-Iland. Syroy.

WHen ye come from the North-cape the Bears-Iſland, your courſe is north northweſt & northweſt northerly, about 54 or 55 miles, Syroy then lyes rigt north northweſt from the Bears-Iſland, (upon the aforeſaid North-cape there are people who lives till they be ſeventy or ſcore years old, they never eat any bread, for they live on Fiſh and Fleſh.)

The Indwellers of the North-cape towards Finmarken ſay, that that Bay never freeſes, ſo that they get their living moſt by taking of Fiſh and drying the ſame.

The Bears-Iſland is reaſonable bigh, ye can row about it in the ſpace of ſix hours; at the n. w. corner there of comming within to it, ye can finde ground of 40 fathoms, and how nearer the land ye come how undeeper it is, for within a Canon ſhot to it ye are on 15 fathoms.

Out of the Bears-Iſland ye can have refreſhment of waters althoug it were for an hundred ſhips: there groweth likewiſe brave herbs, where of ye can make ſalate, which refreſheth a man extraordinarily: there are alſo may fowls: ye finde there Coals to burn, not unlike to the Scots Coals.

At the northeaſt corner there lyeth a little Bay, where ye can ly ſafe after a little Iſland, cornerwindes from e. ſ. e. to w. ſ. w. blows flat into this bay, but as for other windes ye ly ſafe; ye can come into this bay at the ſouth-ſide there of, at the north-ſide it is almoſt faſt to a great Iſland, except a narrow paſſage where ye can come handſomely throug with a chaloup; there abouts is not other Inham to run into time of ſtorme, but round about ye have Anker-ground; yet ye muſt ly in open Sea, the ground is durtie, and there goeth a hollow Sea, ſo that is not good to anker there in time of ſtorm: the floud floweth commonly from the ſ. w. toward the n. e. a ſ. w. and n. e. Moone make hig water: and it floweth commonly 4 foot up and down. At the time of year ye can take good kods, and haddoks at the Bears-Iſland.

The

The East-Coast of Spits-Bergen.

FRom the Bears-Island to Hoopen-Island, the course is northeast northerly as is suspected two & thirtie miles; the Island is 7 or 8 miles in length, & not above three musquets shot broad, it lyeth east northeast, and w. s. w. at both sides, so well at the south as the north: but on the northside alongs the whole Island ye have good ancker-ground, on 20 sa homs, a great half mile from land, on the s.w. end and the northeast end ye have some flat ground, where the Walrushes use to come, otherwise it is overall stay and ragged, but on the southside it is overall stay & rockie, & not fit for ankeringh, of which ye must take heed: yet ye may sayl within half a mile alongs the coast without danger, but there is nothingh on this Island that serveth for refreshment.

There hath been some who have sayled beyond the Hoopen-Island c. n. eastward 24 miles, but found no land, found abondance of Yce, and could reach no ground.

The Hoopen-Island appareth to you a five Mountains, where of the northeast end is the highest.

At the northeast-end of Hoopen-Island there is a valley wel a quarter of a mile in circuit, whereon reforts a great number of Walrushes, yea sometimes it lyeth whole full of them: there are likewise an innumerable number of Seamews and other Sea fowls, they flie sometimes in such multitudes, that they hinder you from the sight of te firmament above your head; so that the land is wel enough to be known by the off and on flying of those fowls seeking food for their young ones.

From the northeast corner of Hoopen-Island to Black-point, the course is north-westerly, some ten miles; but before ye come to Black-point, on the southeast-side there lyeth a great many small Islands; from the mast of your ship ye can tell sixtie of them, but indeed there are so many as if they were sowen, and that all alongs the coast so far as ye can see; and that towards the northeast and west northwest, as we suspect, altogether stones and rocks.

Black-poynt. When Black-point is four miles north easterly from you, you see a great Island, in comparison of the other: when ye are a large musquet-shot on the south-side of this Island, ye ly on 30 fathoms stitch-ground, it is a stay ground for the length of a ship more Seawards in, ye have 60 fathoms; within the aforesayd Islands towards land, ye can see open in Sea, where the Islands are not so close together.

A mile further east from the aforesayd great Island, without the low Islandt, there lyes a great many blindes in Sea, where ye can have no anker-ground, the Sea beats much on those blinds when it is hig water, yet there is no great floud.

On the northeast corner of Hoopen-Island there goeth as strong a'stream as there doth in Texel, the floud commeth from the s.s.w. and runs along the land. A s.s.w. winde maketh there the highest water: on the aforesayd Island is no refreshment to begot, so far as yet known, but is al stonie low land: neither can ye see the foresaid Islands from farre. But Black-point is a very high land, so that when it is fair weather ye can see it from Hoopen-Island: there about ye have thick mists: yea sometimes for the spaces of five or six dages, ye see not once the Sun, but all thick cold mist.

From Black-point, so lyeth the coast eastward on, northeast up, so far as ye can see, to Wijbben Jansons water west northwest, but the whole east along lyeth full of rocks and little Islands, the floud cometh out of the southwest by the Cape on the east-side of Look-out, & runs northeastwardly up to Wijbben Jansons water.

Ye can scarcely lay on by the east-side of the Cape Look-out, because of the Yce that commeth from the east of Nova Sembla, and runs alongh the coast, (as if it were fast land) like to a banck, so that ye can scarcely come through.

The West-Coast of Spits-Bergen.

Look out, or Kyck-uyt. FRom the Bears-Island to the Cape Loock-out or the south corner of Spitsbergen, is the course north-northwest, somewhat westly, about eight and twentie miles.

There lyes a stonie channell on the southeast Cape of Look-out Seawards in wel four miles in length, on some places when the water rages ye can see it beat on the channell, ye can sayl through between this channell & the land, buth with great danger.

From the cape Loock-out to the south-end of the foreland, the course is north-northwest six or seven and twenty miles; between both lyes Horn-zond, Klock-bay, Belzon and Yce-zond.

From the cape Loock-out to Hoorn-zond the course is north-northwest six miles: it is between both stonie and foule ground.

Hoorn-zond. The Hoorn-zond is a wide bay, and lyes without danger of all kinde of windes. The English have their tents standingh there, and comes every year to take fish.

Bel-zond. Between Horn-zond and Klock river (by others called Belzond) lyes the coast northwards westerly & north-northwest, all alongst the coast it is stonie and foule, and full of rocks and craigs.

Willem van Muyen haven. The undeep River. Within the Belzond lies sundrie rivers and havens, and a little within the corner on the north-side, lyes Willem van Muyens haven, (that is so called, because Willem van Muyen had fisht there aforetimes) a little northwards up runs a river landward in, which is called the Undeep River, whereon lyes the old Harbour, where aforetimes there have stood some tents; a little more southerly lyes Michel Rinders river, and more southerly from the a foresayd river lyes Sardammer river, which runs a great way landwards in.

From the Sardammer river westward, or sayleude in through Klock-bay, a little about the south corner there lyes a fair harbour, which because of it is conveniencie, is called the Fair-haven, which is a brave road, and in time of need a man might keep a ship there without anker or tow; it is clean slipperie ground. The Fair-haven.

From the Klok-bay to Yce-zond lyes the coast all northwesterly, and north-northwest, between these two it is durtie and foul, without any bochts or infalls, yet when ye come a little about the south corner ye finde there the Green harbour, thereis a good road, ye may frely anker there, so hard under the wall as ye please, & that on eight, ten or twelve fathoms water, it is there every where a clean flat upgoingh ground, and ye lye there befreed from all sorts of Windes.

The Safe haven. When ye come a little about the north corner ye finde the Safe haven, which lies northward up, and sayling a quarter of a mile upward, ye come to a good road, which is called the Safe-haven; the ground is somewhat stay but clean, the ye may let anker fall, on thirtie fathoms, and ye ly secure from all windes.

Farther westward up, the farewater runs so far up that never any boats yet hath been at the end of it; for it lyes most commonly the whole sommer through full of Yce; but if ye shun this north wall, there is no danger ye need to fear.

The Yce-zond is a wide river to come into, but when ye come into the Hoorn-zond or Safe haven, or get into the Yce-zound, and when ye perceive that the yce begins to come out of the south, ye must make haste to lift ancker, otherwise ye should be besiedged with Yce, so that ye cold not come fort, and chiefly in the after-sommer. The Yce-zond.

Whileft ye sayl this passage upward, ye shall finde a great many Rocks, of which ye can take some: and all longs the shoar ye have such a multitude of fowls on the rocks, where they breed their Young-ones, that by their dungh the rocks grow, as if were green: there growes likewise a sort of herb, which is called Slae, and is a like to scurvie-grasse, the which herb tastes even as salate, and refreshes a man extreamly.

From the yce-zond to the south-corner of the Foreland, the coast lies northwest, yet ye must shun the south-corner, because it is a little foul. There lies a rock southwest from the land off seawards in, which is a quarter of a mile longh. The Foreland lie south and north from the south to the north corner, or fowlie corner, wel 15 or 16 miles in length. A mile and a half be north the south-corner of the Foreland there lies two Islands, the one a can on shot from the other, and as far between them & the wall; on these Islands there are many thousands of fowls like to Rotgeese, and drakes, there are likewise a great multitude of egges to be

be got. A great mile be north there lyes a Rock of clear white ſtones (under which there are many great ones) this lyes from the wall Seawards in about a mile and a half. Three miles beyond the Perſh-Rif, there lyes a little Iſland near under the ſhoare, where likewiſe are many fowls and egges to begot, between both it is reſonable clean, but towards the wall lyes ſome Rocks, wherefore ye muſt take heed that ye come not to near to the wall.

About the North-corner of the Foreland, between the maine land ye can caſt Anker on 20, 18, 15, 10 and 4 fatums, according as ye are far into it, but neareſt the Foreland.

Croſſe-bay. At the faſt land lyes the Croſſe-bay, and ſomewhat forward ſutherly within the Foreland there lyes the Engliſh-bay, where the Engliſh com a Fiſhing.

The Engliſh bay. From the Fowl-corner or North-corner of the Foreland to the Danes-Iſland, the courſe is northeaſt northerly, the matter of nine miles: under way lye Madaleenen-Bay, where ye have a good road at the South-corner of the Bay, but it is high ſtay land, and we caſt Anker commonly a little within the South-corner, yet ye may ſayl a little farther in, and let the Anker fall at the Northwall, for ye have every where good ground on 15, 20 and 25 fathoms.

The North-corner of the Madaleenen-Bay is the South-corner of the Engliſh-Bay, which is ſtonie and foul, and very dangerous for thoſe that know it not.

From the Madeleenen-Bay, to Robbe-bay, the courſe is n. n. e. and ſ. w. 2 miles, between thoſe two there lyes a low Iſland, which is called the Engliſh Look-out, from whence a ſtonie Channell lyes, in length of a Canon-ſhot: ye can come throug this Channell, but with great danger. Madaleenen-bay. Engliſh Look-out.

From the Robbe-bay (which lyes on the Danes-Iſland) to the South-bay, the courſe is north northeaſt about half a mile, we ſail commonly be north the South-corner of the South-bay into the bay, but when ye come into the South-bay, ye muſt ſhun the North-wall, for it is foul; in the in comming ye may go ſomewhat near the North-wall, and caſt Anker on 10, 15, 16 or 20 fathoms good ground, ſafe from all windes.

The Hollands or Maurits - Bay.



AT the North-corner of the South-Bay there lyet four ſmall Iſlands, of which the outtermoſt is the greateſt from the weſtmoſt part of thoſe four Iſlands, to the Hollands or Maurits-bay, the courſe is eaſt northeaſt a quarter of a mile, if ye ſhun the rocks, ye need fear no danger, except ſome rocks, otherwiſe is it a fair coaſt, for ye may ly at Anker under two ſeverall corners of this bay and that a Canon ſhot or two from the wall as ye pleaſe, that on 15, 18 or 20 fathoms: if ye ſayl a little ſ. ſ. e. in, ye can ſee the Hollands ſhips lyingh at Anker a fore theyr Tents: but if ye would ſayl to them, ye muſt not come nearer the Southwall as where ye have 7 fathom water: and then ye come firſt where the Amſterdams Tents are, when ye are there ye may go as near the wall as you pleaſe, yea if there come an Yce, ye may make your two faſt on land, and need not fear any windes: then come ye to the Tents of the Chamber of Middelburg and Vliſſing, likewiſe where the Danes and other ſtrands: From the weſtermoſt Tent there runs a craig of, by the which ye cannot come, it runs moſt the whole paſſage over; and then ye ſee flat out of the Soudbay: on the ſouth-ſide of the a foreſayd craig there lyeth ſundrye little Iſlands, as alſo many ſtones under water: it where poſſible to ſayl from hence out of the South-bay to Sea, but it muſt firſt be marked with beacons or tuns, becauſe it is a narrow paſſage: from the weſtmoſt Tent out of the South-bay is about a mile in length, and is called the Amſterdams-Iſland, becauſe their Tents ſtands there: the place where the Tents ſtand, is about a Muſquet-ſhot in breath, after which runs a Kinde of water or a ſtil ſtanding Pool.

Amſterdams Iſland. Eaſt ſoutheaſt and eaſt northerly from the Amſterdams Tent lye two Yce-Mountains hard on ſhoare; ſometimes the Yce comes down with ſuch a force, that they make the ſhips that lye a fore the Tents to ſturre: the land within the bay is very hig and ſtay, as likewiſe it is by the Amſterdams and Danes Iſland, althoug not ſo high.

Devils Island. At the South-corner of the Hollands-Bay lyeth a little Island hard under-wall, called the Devils-Island; ye need not fear it, for ye may sayl hard by it: From that same corner to the Vogelsangh, the course is east northeast a great mile: The Vogelsang is an Island, clean round about, for ye may let anker fall where ye will. From hence e. s. e. a The Cloven Island. Canon-shot lyeth the Island met de Kloof, or Kloven Island: so called, because the Mountain that lyeth on shoare is cloven, and lyeth between the Vogelsand and the a foresayd Island.

Archepelliga. Between the fast land and the a foresayd Island, there lye divers Islands, who because of their multitude, are called Archepelliga; in these Islands are diverse roads to be found for those that are acquainted there, but none to be had at the fast land.

The Zews Uytkijck. From the cloven Island to the Island called the Zews-Uytkijck, (or Look-out:) the course is southeast easterly about a half a mile: between both there lyeth a little round Island, called the Geese-Island: when ye come thyther ye must sayl through between this and the Zews-Kijck-uyt, The Geese-Island. keeping the Gansen-Island a Canon-shot from you Seawards in: at the Zews-Island ye have good Anker-ground and lyeth on twentie or fifteen fathoms good Anckerground.

That passage which runs between the Islands and the fast land, ends between the Zews-Island and Moniers-bay: it is possible to sayl through the Hollands-bay, but onely for those who are used with those passages.

Moniers-bay. From the Zews Uytkijck to Moniers-bay, is the course southeast a half mile, and the passage is almost a quarter of a mile broad; and on the south-side there lyeth a haven called the Ever-(or Egge) haven; Moniers-bay it not fit to The Egges-haven. sayl into, because it is stonie, foul and Rockie, and seldome used.

On the east-side of the Zews-Kijck-uyt, in the after-sommer, ye have often southwest windes with great calmnesse; and in the fore-sommer northerly windes; althoug ye have had a good gayl at Sea: how farther east so much worse: the floud floweth from the south toward the north all alongs the coast: it floweth wel eigt hours, & ebbes in lesse then four. All the Yce that cometh with an east winde from Nova Sembla, cometh with a great force a long the North-coast of the Cape the Kijck-uyt, into the Hollants-bay; yea so hard that the ships have enoug to do to shun it; this is alwayes so when ye have often east windes in the foreyear; then it is driven to the west-side of the Cape the Kijck-uyt, where the yce lyeth and swimmeth till it be dryven by the south-floud untill the coast of the Foreland, so that all the bayes are filled there with, from thence it runs northward on, not knowing whether.

The Red-bay. From Moniers-bay to the Red-bay, the coast lyeth east southeast 4 miles, the coast is every where foul and stonie, hard under Moniers-bay it is a low land, yet by piece and piece climming upward to the Red-bay. The East-corner of Moniers-bay is called the Low-corner.

The Reene-velt. From the Red-bay to Reene-velt, the course is e. s. e. 5 miles; the coast is not clean, yet ye get ancker-ground on 20 or 18 fathoms alongs the Reene-velt, yet ye shall finde no clean ground.

The Reene-velt is low even ground, in the middle there of lyeth a little round hill, which when it is from the s. s. w. from you, ye have all alongh the coast of Reene-velt Anker-ground, as is a foresaid.

On the east-side of Reene-velt there runs a broad sayl-water, called the East-wijck, at the end of which never any hath been as yet, this water runs every far landwards in, and is well three miles broad. On the East-corner of the Easter-wijck lyeth the Gray-corner, and lyeth from Reene-velt southeastward three miles, as is a foresayd. The Reene-velt lyeth from the outermost of the Islands east southeast ten miles. From Reene-velt northeast northerly four miles lyeth the Moffen-Island where are many Walrushes.

Erom the Gray-corner with a southeast course, ye sail to the Southeaster-land on, over a bay which is 4 miles broad which bay runs south, and south southwest. Gray-corner.

The Easter-land runs e. n. e. upward, but it is yet unknown how far, it is a even land, reasonable high, but of divers sorts of earth, a like to Spits-bergen, so that it is thougt to be an Island.

The whole West-coast of Spits-bergen is wholy high uneven land.

The difference at Spits-bergen is 22 grades nordwesterly, when the Sun is s. s. w. he is at the highest there, according to the Hollands Compas.

In the fore-sommer ye have there commonly easterly, and in the after-sommer southerly windes.

Likewise on the West-coast of Spits-bergen in the fore-year ye have commonly east and n. e. and in the after-year most southerly windes.

Of the Tydes and flowing of Streams.

At the West-coast of Spitsbergen the tyde keeps no constant course, but a floud with a northeast & southwest Moone maketh the highest water; it floweth with a dayly tyde 5 and with a floud 6 foot.

A southwest and northeast Moone maketh highest water at the Bears-Island, the floud commeth commonly out of the southwest and floweth towards the southeast.

A south southwest and north northeast Moone maketh the highest water on the Northeast-corner of Hoopen-Island, & it floweth there as hard as in Texel: it commeth out from the south southwest and runs along the coast to the Cape the Kijck-uyt: the stream floweth from southwest northeastward to Wybbe Jansons water.

On the east-side of the Zews-uytkijck commeth the stream from the south, and runs to the north; it floweth 8 hours, & ebbe scarce four.

Of the Depths.

At the Northwest-corner of the Bears-Island ye have 14 fathoms, and dryeth more and more up till ye be within a Canon-shot of land where ye have 15 fathoms water.

Situation and Courses.

From the North-cape to the Bears-Island the course is northwest and northwest, somewhat westerly	54 or 55 miles
From Suroy to the Bears-Island north northwest	50 miles
From the Bears-Island to Hoopen-Island, n. n. e. northerly	32 miles
From the Southwest to the Northeast-corner of Hoopen-Island, east northeast	8 miles
From the Northeast-corner of Hoopen-Island, to Black-poynt, north somewhat westerly	10 miles
From the Bears-Island to the Cape the Uytkijck, north northwest somewhat westerly	28 miles
From the Cape the Uytkijck to the south-end of the Foreland, north northwest	26 or 27 miles
From the Cape the Uytkijck to Horn-zond, north northwest	6 miles
From Horn-zond to Bel-zond, north somewhat westerly and north northwest	7 miles
From Belzond to Yce-zond, north westerly	11 miles
From the south-end to the north-end of the Foreland, north	15 or 16 m.
From the North-corner of the Foreland to the Danes Island, northeast northerly	9 miles
From Magdalene-bay to Robbe-bay, n. n. e.	2 miles
From the Robbe-bay to the South-bay north northeast	half a mile
From Devils-Island to the Vogel-sang, east northeast	a large mile
From the Vogel-sang to the Zews-Uytkijck, s. e. easterly	a large mile
From the Zews-Uytkijck to Moniers-bay, s. e.	half a mile
From Moniers-bay to the Red-bay the course is east southeast	4 miles
From the Red-bay to Reene-velt east southeast	5 miles
From Reene-velt to the Gray-corner southeast	3 miles
From Reene-velt to the Moffen-Island, northeast northerly	4 miles

Heights.

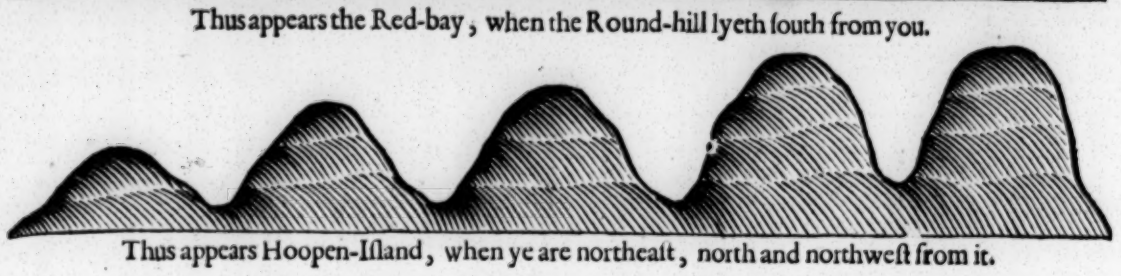
The Bears-Island lyeth on	74 grades and a half
The Cape the kijck-uyt lyeth on	76 grades 36 minutes
The North-corner of the Foreland lyeth on	79 grades 20 minutes.

Thus

Thus appears the Land in your ſight when ye are on Sea.



Thus appears the Red-bay, when the Round-hill lyeth ſouth from you.



Thus appears Hoopen-Iſland, when ye are northeaſt, north and northweſt from it.

The fourth Demonſtration,

Containing

A Deſcription of Orlogenes from the Cape of Candenoes to the Weſt-Coaſt of Nova Zembla and the Waygats.

Candenoes.

ORlogenes and the Cape Candenoes lyeth ſeverally n. e. and ſ. w. 35 miles. The Corner of Candenoes is wel enough known; there ſtands five great Croſſes up for tokens, which when ye come by; ye can perfectly perceive that the land fayls you, on the one ſide ſ. w. toward the White-Sea, and on the other ſide ſ. e.

Morſonowits.

About 10 miles eaſterly from Cabo de Candenoes, there lyeth an Iſland called Morſonowits, from thence eaſterly there lyeth a great Inham landward in, which is a flat undeep water, with all a deceit full ground. There hath been divers ſhips who have ſayld a miſſe here, thinkingh that they had been in the Mouth of the White-Sea, therefore it is neceſſarie to diſtinguiſh the land, for the Ruſſiſh Coaſt eaſtward Candenoes is very ſandye, and a flat ſhoar, and the Coaſt of Lapland is hig, and full of Mountains. Into this Inham there runs a River from the land, throug the which ye can come in Boats to the White-Sea.

Colgoya.

Beſides this Inham about 20 miles eaſt and eaſt ſoutherly from Candenoes, there lyeth an Iſland, called Colgoya which is 10 miles in length; ye may ſayl round about it, but on the ſouth-ſide, there of lyeth a crayg which comes from the eaſt, that ye muſt ſhun, becauſe it joyns to the weſt-end of this Iſland. There are a great many geeſe on this Iſland, which in the ſommertime are wholly naked having no kinde of feathers; they lay their egge under their ſtump or taile, and on the faſhion breeds forth their young ones: there are ſuch multitudes of thoſe Geeſe there, that the Ruſſes come which their Lodges or Boats to land, and takes of them by multitudes, and Salts them in Tuns.

Tuſſara.

From the Candenoes to the Iſlands Tuſſara the courſe is e. ſ. e. 32 miles, and between both lyeth this great ham.

Swelgenoes. Col-ova.

On the weſt-ſide of Tuſſara lyeth the Corner of Swelgenoes. From Tuſſara to the River of Colcova the courſe is eaſtward 5 miles, that is a good River, and ſome 12 foot deep, there is no other traffique there but that the Ruſſes comes from Colmogro and S. Nicholas with their Lodges to change their Wares for roughs Skins.

Pitſana.

Five miles eaſtward from the River Colcova lyeth the River Pitſana, which is but ſix foot deep, and is not well known, little weſterly from this lyeth a drye banck, which ye muſt ſhun. Olivier Brunel coming from Nova Sembla ſat here on ground.

Pitſora.

Ten miles eaſtward from Pitſana lyeth the River Pitſora, that runs by the Eaſt-Corner in, ſouth ſoutheaſt and is deep ſix Holland yards: the land there is low and ſandye, on the Weſt-Corner there ſtands a Pack-houſe, whereon ſtands ſome Croſſes; when ye come within the River turn a little weſtward up toward the Packhouſe, and led anfall on three or foure fathoms water, there is a great Poole or lake.

Ye muſt ſhun the eaſt-ſide of the river, for it is ful of ſand & banks. The Town of Pitſora lyeth 26 Dutch miles landward in: there is abundance of coſtly Skins and Criſtall.

Oltgyn.

Between Pitſora & Waygats lyeth Oltgyn, and without on the land lyeth two Rocks or little Iſlands, the one called Oranjen, and the other Graef Maurits: there ye may ly at ancker on ſix or ſeven fathoms. From the ſouth-ſide there comes a ſand bed off-ſailing, where ye have but three fathoms. On the eaſt and weſt-ſide of theſe two Iſlands, there is a great Inham, flat water; the land lyeth there in the round to the Corner of Pitſora all in one Inham: is from Pitſora to Waygats n. e. eaſterly 24 miles.

Waygats.

Waygats, which is likewiſe called the Strait of Naſſowen, is a narrow paſſage throug which ye can ſayl into the Tartariſh Sea. It lyeth firſt eaſterly, and then northeaſt the matter of 6 or 7 miles, about midway there lyeth an Iſland, which ye can ſayl by on both ſides. A little within the Corner on the north-ſide is a brave bay, into the which ye can let ancker fall ſo deep as ye pleaſe, to witt in 5, 4 and 3 fathoms, good ſtrong gronnd; toward the eaſt-wall ye have the deepeſt water, & ye ly there ſafe from all windes or Yce-flouds. It hath been aſſayd at two ſeverall times to finde away throug this Strait, to ſayl benorth Tartie to come to the rigt Kingdomes of Cathy and China, & from thence to Molucquen, but all in vain, becauſe of the great yce that lyeth there the whole year, and never ſmelts, by reaſon of the conſtant cold.

Traenbay.

Oby.

From the eaſt-end of the Strait Waygats to the Inham of Oby, the courſe is e. ſ. e. and ſ. e. eaſterly 30 miles. On the eaſt-ſide here of the land lyeth n. e. 30 miles more, to the two norther Rivers, and from thence n. e., but how far, is not as yet known.

Nova Zembla.

The Weſt-Coaſt of Nova Zembla lyeth from Waygat northward to Conſtint-zarck, n. w. about 40 miles. Benorth this falls it north eaſterly-ward to the Corne of Langeneſſe or the Staten-hoeck (or States Corner) and ſo forth n. n. e. n. e. and eaſt, n. e. to the Iſlands of Oranje; the northermoſt-part of Nova Zembla lyeth on the heighth of 77 grades and an half.

Of the Tydes and flowing of Streams.

From the East-side of Candenoes to the Island of Colgoyen, the Stream fals east and east southerly, as likewise along that same Island; From Colgoyen to Waygats fals the Stream east and west. Alonghs Nova Zembla the Streams, turns about with the Moone. Alongs Rusland they come from between Candenoes and Pitsora out of the west and w. n. w. and so runs alongs Rusland.

The Streams that comes to Waygats comes from Colgoyen and Nova Zembla, and falls with the rest east northerly throug the Strait of Waygats to the River Oby, so by this means the flowing and ebbing of the Streams keeps the passages of Waygats open, so that they are often without Yce, except boards of Yce that come from other places driving. But on the east-side of Waygats the floud comes from the northeast, and falls in the Oby and Srait of Nassow. The water Flows and Ebbs there, but keeps no constant course.

Of the Depths & Grounds, so wel on the east-side as west-side of Waygat.

Along the whole coast from Candenoes to Waygats, it is flat upgoing ground, most sand and fast ground. If it be mistie weather and if ye have 8 or 9 fathoms wather, then ye must know that ye are but three or four miles from the coast: but if ye have 30 or 35 or 40 fathoms, then ye are far enough from land: so is it likewise alongs Nova Sembla, and over the east side of Waygats, but when ye come into the Mouth it grows flatter.

Of the Situation, and how every Land lyeth from another.

From Orlogenoes to the Cape Candenoes the course is n.e. 35 miles
From Candenoes to the Island Colgoye, the course is east, southerly 20 miles
From Candenoes to Swelgenoes, s. e. easterly 22 miles
From Candenoes to the Island Morsonowits, s.e. 10 miles
From Candenoes to Tussare, e. s. e. 32 miles
From Tussara to Colcova, east 5 miles
From Colcova to Pitsana, east northerly 5 miles
From Pitsana to Pitsora, east and east northerly 10 miles
From Pitsora to Waygats, the course is about n. e. easterly 10 or 12 miles
From Catsnoes to the Island of Solofky, west a little southerly 28 miles
From Catsnoes to Warsiga, n.w. westerly 12 or 13 miles
From Catsnoes to Polongi, n. w. northerly 17 miles
From the Islands of Solofky to Ombay in Lapland, north 24 or 25 miles
From Solofky to Warsiga, e. n. e. 24 miles
From Solofky to Polongi, n. e. easterly 38 miles
From Candenoes to Constintzarck in Nova Sembla n. e. somewhat easterly 46 miles
From the east-end of Colgoyen to Waygats, east 45 miles
From Pitsora to the east-end of Colgoya, w.n.w. 32 miles
From the Lowland to the Stream-bay east & west 4 miles
From the Stream-bay to Yce-havens-corner, east northerly 3 miles
From the Yce-havens-corner to the Islands-corner the course is e. n. e. 5 miles
From the Island-corner to Vlissinger-head, n. e. easterly 3 miles
From Flissinger-head to the Head-corner the course is n. e. 4 miles
From the Head-corner to the corner of Begeerten, (or desire) south and north 6 miles
From the corner of Begeerten to the Island of Oranjen, northwest 8 miles
From the Island of Oranjen to Yce-corner, w. & s.w. 5 miles
From the Yce-corner to the Cape the Troost (or comfort) west and west southerly 25 miles
From the Cape the Troost to the Cape Nassouw, west northerly 10 miles
From the Cape Nassow to the east-end of the Crosse-Island west northerly 8 miles
From the east-end of Crosse-Island to Wilhelms-Island, west southerly 3 miles
From Wilhelms-Island to the Blak-corner, w. s. w. 6 miles
From th Black-corner to the east-end of the Admiraliteyt-Island, w. s. w. 7 miles
From the East-corner to the West-corner of the Admiraliteyts-Island, w. s. w. 5 miles
From the West-corner of the Admiraliteyts-Island to the Cabo de Plancia s. w. westerly 10 miles
From the Cabo de Plancio to Lomsbay, w. s. w. 8 miles
From Lomsbay to the Staten (or States) corner w. s. w. 10 miles
From the States-corner to Langenesse, s. w. southerly 14 miles
From Langenesse to the Cabo de Cant s.w. norterly 6 miles
From the Cabo the Cant to the corner of the Black-rock, southwesterly 4 miles
From the corner of the Black-rock to the Black Island, south southeast 3 miles
From the Black Island to Costintzarck, e. & w. 2 miles
From Constintzarck to the Crosse-corner, s. s. e. 5 miles
From the Crosse-corner to S. Laurence-bay, s. e. 6 miles
From S. Laurence-bay to Meel-haven, s. s. e. 6 miles
From the Meel-haven to the two Islands, s. s. e. 16 miles.

The Heights.

The Cape of Candenoes lyeth on 69 grades 30 minuten
I. Colgoya on 69 grades 10 minuten
The Rivers of Colcova, Pitsana, and Pitsora lyeth on 68 grades 40 minuten
Waygats or the Strait of Nassow lyet on 69 grad. 43 min.
The North-corner, which lyeth most northward of Nova Sembla, lyeth on 77 grades 30 minuten.

Duytsche mylen 15 voor een graedt

Spaensche mylen 17½ voor een graedt

Engelsche en Fransche mylen 20 voor een graedt

Noordt bodem

Rangma

Erke

Borghscharen

Stockholm

Noordt cappen

Nycoppen

Zuyder cappen

Copenhagen

Godsche sant

Salsoneya

Wisbuy

GOTLANDT

de Bancken

Calmer

Oelant

Bornholm

Brouwers Rif

Dantzigk

DENEMARCKEN

SCHOONEN

Blecken

Ichebzyde

CASSUBEN.

POMEREN.

PRV

OOST FINLANDT

LIFLANDT

Wyborg

Revel

Ryga

Memel

Koningsbergen

Pascaart
Vande
OOST-ZEE.
Vertoonende in sich alle gelegentheden van de Custen vñ Denemarcken, en Sweden, Pomeren, Pruyssen, Courlant, Lyfland, en Finlant, alles op syn rechte hoogte distantie ende couersen gestelt.
TABVLA HYDROGRAPHICA.
Maris
BALTICI
Exhibens accuratam Litorum Daniæ, Sueciæ, Pomeraniæ, Borussiæ, Courlandiæ, Livoniæ, et Finniæ, faciem in sua cujusque Poli Elevatione, distantia et situ; novissime descripta.
Nieulicx uytgegeven

T'AMSTERDAM
By Anthony Iacobssen op t' Water
inde Loots-man.

De Custen van

DENEMARCKEN,

en Sweden, van Valsterbon tot Schenckenes, als mede de custen van Pomeren van 't eylant Rugen tot Rygshooft.

't Amsterdam,

By Iacob Theunisz. op 't water inde Lootsman.

B L I K I N

Boere kerk

Ahuys

Christiaen stadt

Boss

Sommerhuysen

S C H O N E N.

Sandhamer

Engsher

Oud Trusterhon

Trusterhon

Drellborgh

Meun

Eerthon

Born hólm

Brouwers Rif

Jasmont

Borgen

GEN

Straelsund

Grijpswalde

Slot

Nossen

Haff

P O M

Gotlant

Calmer

Wisby

Stockholm

Hoghmars grynt

Borckenhaven

Chrystianopolis

Capel op Zuderroure

Oeland

Groen Eylant

Dorpskercken

Zuyder oerden

Reefcol

Gantsoy

Ter Swip

Runwolt

De Wijser

Coslin

Colberghen

Wyscker

Lyda

Scarnaghe

Rygsbooss

C A S S V B E N

R

F

Duytsche mylen 15 in een graet

Spaensche mylen 17½ in een graet

Eng. en Fra. mylen 20 in een graet



The first Part of the New

Lightning Sea Columne,

OR

SEA MIRROUR.

The fourth BOOKE of the

EASTERNE NAVIGATION,

CONTAIGNING

The Deſcription of the Whole EAST-SEA.

The firſt Demonſtration,

Where in are Deſcribed

The Sea-Coaſtes of Falſterborn to Schenckenes, and from the Iſland Rugen to Ryghs-head.

Elburg. HOW men ſhall ſayle about the riffe of Falſterborn hath been here before rehearſed. The Coaſt from Falſterborn eaſtwards lyeth moſt eaſt & by north. Firſt from Falſterborn to Elburgh are 3 leagues. If you will anchor before Elburgh, then bring the Cloyſter & the Church within a fathom or a fathom & a half near one to the other, and ſayle ſo right in unto the Town, you may anchor by it in 4, 3 or 2 fathom and a half.

From Elburgh to Uytſtede are 7 or 8 leagues. Betwixt them both about 3 leagues to the eaſtwards of Elburgh, & 5 leagues to the weſtward of Uytſtee is a poynt, off from which lyeth a ſhoale, come no nearer it then 8 or 9 fathom.

Uytſtee. Uytſtee lyeth in a bight, and hath a high ſharp ſteeple. If you be bound thither, then bring the peeple north from you, and then ſayle in right with it towards the ſtrand; there ſtandeth a red tiled houſe to the eaſtwards of the bridge, bring that houſe and the end, of the bridge one in the other, and ſayle in ſo, & runne to the weſtwardes of the bridge, anchor there in 3 fathom, or two foot leſſe, there is cleane ſand-ground. When you come from the weſt, and are paſt that foreſaid ſhoale then you may boldly runne alonghſt by the ſhoare in 3 fathom and an half, without feare.

Three leagues to the eaſtwards of Uytſte lyet a hig point called Goeſſebeer, from thence to Sandhammer is a league.

Goesbeer. From the poynt of Goeſſebeer runneth of a great ſhoale farre to Seawards, and lyeth alongſt the Coaſt, unto neare Sandhammer, you may ſound it in 6, 8 and 10 fathom, as you will. When you runne over it in 10 fathom, then lyeth the north-end of Brunſholm about eaſt and by ſouth from you and the poynt of Sandhammer north Under the Sandhammer is good anchoring for a weſt, weſt-ſouthweſt, weſt-northweſt and northweſt winde, in 5 or 6 fathom. When you come out of the northeaſt you may runne along by this coaſt with a northweſt winde, in 7, 8, 9 or 12 fathom, untill paſt Goesbeer, for to avoyd Brunſholm.

The poynt of Goesbeer & the north-end of Brunſholm ye n.w. & by w. and ſ. e. & by eaſt about 5 leagues aſunder, but Uytſtee and the foreſayd north-end of Brunſholm lyeth weſt-northweſt and eaſt ſoutheaſt nine leagues aſunder.

For to ſayle from Falſterborne about to the northwards of Brunſholme you muſt go on eaſt, ſo long untill that you have the length of Uytſtee, then forth eaſt and by north, and then you ſhall ſayle yet neer enoug to the poynt & ſhoale of Goesbeer, come no nearer it then 7 or 8 fatum. But to ſayle from Falſterborn to the ſouthwards of Brontholm the courſe is eaſt and ſouth ſomewhat ſoutherly 22 or 23 leagues, & alongſt the ſouth-ſide of Brontholme eaſt ſoutheaſt.

The Iſland Brontholm is clean round about, except on the ſoutheaſt-poynt, there runneth of a foule riffe, called Brewers-rif, which men muſt avoyd. On the northeaſt-ſide you may runne alongſt by it upon your lead, without doing a miſſe, in 22 or 23 fathom, & alongſt the ſouthweſt-ſide in 8 or 9 fathom. Brontholm.

Men may anchor round about Brontholm, at divers places, as before Rottum, and to the northwards, before the Caſtle, thwart of Sandwick, Suaux and Nex.

Roade under Brontholm. Before the Village, betwixt Rottum, & the caſtle that ſtandeth upon the n.w. poynt, is good anchoring for an e. n. e. winde, in 13, 14 & 15 fathom, but not verie cleane ground. Rottum.

Thwart of the Caſtle it is good lying for an eaſt northeaſt, eaſt & eaſt ſoutheaſt winde in 18 & 20, and alſo 14 & 15 fathom ſand-ground, but nearer the ſhoare the ground is not verie cleane, the nearer to the ſhoare te fouler ground.

Under the northweſt-poynt before Sandwick there is good anchoringh for ſouthweſt-windes, and you may come neare unto that poynt. From the northweſt poynt to the other poynt the ſhoare lyeth eaſt ſoutheaſt and w. north w. Sandwick.

On the eaſt-ſide is good anchoring before Suaux & Nex: but before Nex it is not verye clean. By Nex runneth of a little riffe from the ſhoare, which is ſteepe on both-ſides: but if you come no nearer it then in 10 fathom, you can take no hurt of it: to the northwardes of Nex lyeth alſo a great Rock. He that will anchor before Nex, let him anchor ſo that the flat ſteeple which ſtandet above Nex, doe ſtand betwixt the weſt and weſt and by ſouth from him, and that the north-poynt be n. & by w. & the ſouth-point be ſ.ſ.w. from him, there it is 22 fathom deep, and cleane ſand-ground. At many other places it is otherwiſe and rough ground, with ſouthweſt and weſt-winds you have there a weather ſhoare. Nex.

The Eartholmes lye from the north-end of Brunſholm eaſt and by n. & w. & by ſ. 3 leagues aſunder, and from the ſoutheaſt-end, ſ. & n. 5 leagues. In the Eertholms is a little Haven, but by reaſon that it is not uſed it is unknowne.

Betwixt the north-poynt of Brunſholm and the poynt of Sand-hammer, but neareſt to Brunſholm lyeth a ſhoale of 6 fathom, where ſometimes Fiſhermen doe lye to Fiſh, it is not verie great, but hard ſtonie ground. Shole by Brunſholm.

From Sandhammer the coast lyeth n. n. e. and north and by east two leagues to Somer-haven, this is a round bay, within it is very good anchor ground. From thence the coast lyeth about north six leagues unto Ahuys. From the north poynt of Buntholm to Ahuys, the course is north somewhat westerly about 13 or 14 leagues. But to Hanno, north and by east 13 or 14 leagues.

Ahuys lyeth upon a river, where sometimes is before the towne 10 or 11, and sometimes also no more then 4 or 5 foot water, accordingh as the water commeth of out of the land, upon it is a great fishingh, where in the sommer time are great store of good Els taken. To the eastwardes of the mouth of the River runneth of a stony flat from the shoare, and to the southwards of the river a foule stony riffe, right of from the shoare alongst by the foresayd flat, so that there lyeth in a channell betwixt the foresayd flat, and riffes which is called the Easter-gat.

Through this foresayd riffe lyeth in a channell untill into the Eastergat, on against the flatte, which is called the Southergat. If you will sayl into this southergat, comming from the southwards, then runne to the west shoare to the southwards of Ahuys, untill you come in 5 or 6 fathom, and then you shall see upon the north shoare, north and by west somewhat more westerly from you, a cape or beacon standing a little from the strand within the land, of fashion like a mill without wings: Bringh this beacon to the west-side of the high hill, which lyeth somewhat further into the Land, to witt, even in the going of the highest of the hill, keepe these markes so standingh, and sayl in right with them untill that Ahuys commeth over that tree, which standeth there at the north end of the wood, or that the white Countrie-church come to the northwards of the little houses of Ahuys, then goe on n. w. or bring that foresayd white Countrie-church in a little valley, a little to the northwards of an old ruined castle, where of there standeth yet some of the walls upon, the north-side of the river, and sayl so on, untill that Ahuys come to stand in the middest of the river, anchor there in 2 fathom and an halfe, or 3 fathom, there is the roade, there can goe no sea. In this southergat it is 2 fathom, 2 fathom and an half, and sometimes also a least 3 fathom deep.

Eastergat. For to sayle into the Eastergat, comming from the southwards keepe in 6 or 7 fathom, & runne so the north shoare and then you runne alongst without the riffe, that lyeth of by south the rivers mouth from the west shoare, untill that Ahuys. Ahuys doe stand rigt west from you, then there commeth a great tree to the wood, that standeth upon the west shoare, keepe that so standing and runne in right with it, untill that the foresayd Countrie-church come to the aforesayd old peece of wall, of the old ruinous castle, and then right in, as hath beene beforesayd. Or runne in by the first markes, untill within a shot of a cast peece neer to the west shoare, and then edge up to the north shoare, untill that Ahuys come in the middest of the river, and anchor there, as hath been sayd.

Hanno. Hanno is a hig round Island, which men may sayle round about, under it is good road for south and s. e. windes.

Behind Hanno runneth up a little River to Selsbrough, but serveth onely for small shippes or Crayers, which go not deepe.

From Ahuys to the Rockes the course is east & south 12 or 13 leagues betwixt them both lye divers little townes, as Fleholme & Rottenbuy, where men may anchor before, in 6 7 and 8 fathom good anchor ground. And other havens more, but little or nothing knowne by Hollanders. Thwart of Rottenbuye lyeth a litle Rocke somewhat off from the land, called Malqueren, under which men may also ride. Fleholm Rottenbuy.

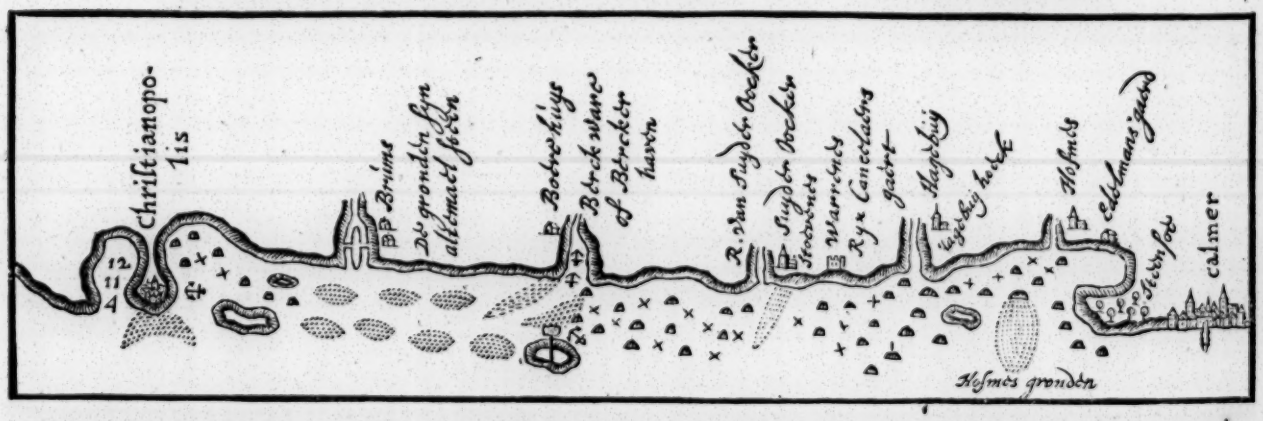
From the north poynt of Buntholm to the Rocks the course is northeast somewhat northerly 16 leagues, but from the poynt of Sandhammer e. n. e. 16 leagues. If you runne alongst close by north poynt of Buntholm, you shall runne with a north waye, alongh even without the Rocks: But if you runne alongst close by the poynt of Sandhammer, and will sayle from thence to the Rockes, you shall with a north east & by east waye fall with the Land even within them, or to the westwardes of them.

The rocks. The Rocks are some little rock together, which men may sayle round about, but can have no Roade under them; they lye 3 or 4 leagues distant from the maine land, and are smaller then the Eartholms.

A league or two to the northwards of them lyeth the Vrouwen of Grene Island, by some called the Roug Island, and also the Outlyers: It is not so brooken in it selfe as the Rocks, & also much greate, of to seawards from it, lye some rocks, to the westwards of it, it is all full of rocks, some above and some under water alongst even fast to the Land, you may sayle about within the Greene Island betwixt it and the roockes, but no man can doe it, but he must be verie well acquainted there, & then also not without great daunger. To the south-wards of it you may also finde Road at some places, but you must be verie wel acquainted, and also not without daunger, by reason of the multitude of suncken rocks and sharp grounds. The east-side of the Outluyers lye from the rocks n. e. & by north. The soud end of Oeland is a sharpe poynt, & lyeth from the roks east & west about ten leagues distant. Thwart of it, betwixt the maine land and the a foresayd south poynt of Oeland, it is about 4 leagues broad, betwixt them both goeth in the Calmer-sound. Oeland

For to sayle up into the Calmer-sound, then goe on from the rockes or from the Outlyers n. e. & by east & then you runne in betwixt Oeland & the maine land upon 14 fathom and sayle then n. n. east betwixt them both, a middest the channell, both the shoares are verie soule: but if you come not neaier them then in 7 fatum you can take no hurt there.

CHRISTIANOPOLIS and CALMER.



Christianopel. From the Rocks to Calmer are 16 leagues: About half waves betwixt them, n. w. from Southerorden the soutermost poynt of Oeland lyeth the towne of Christianopell, lately built there upon a little Island by the Kinghs Majestie of Denmarke, and so called after his name. Thwart of it was wont to lye upon the maine land a little towne called Overschare, now it is one with Christianopel, thwart of it lyeth a ledge of rockes about a great English mile of from the shoare south east into the sea, come no nearer it then in 10 fathom. Overschare.

At Christianopel is a haven on the east-side, from is lyeth of a riffe towards the east northeast into sea; therefore he that will sayle in there must come in from the northwards for to avoyde this riffe.

To the northwardes of Christianopel towardes Calmer, it is on both sides (as well on the side of the maine land, as on the side of Oeland) all full of rocks and foule grounds, but you may sound both the shoares: in the middest betwixt both in the farewave, it is 10 and 12 fathom deep, all soft clave ground, to the southwards of Christianopel it is deper, but to the northwards of Calmer it is by littler shoaler.

Berkerhaven. Two leagues to the northwards of Christianopell lyeth Berckerhaven, there men doe lade oaken beams, there within it is good lyingh, but verie bad for to come in or out, because of the multitude of suncken rocks, and other foule grounds, which lye before it, about a half league off from the shoare to seawards.

About

Holmes ground. About a league to the northwards of Berckerhaven lyeth Hoſmes ground, which is a very bad foule ground, lyingh ſomewat farther off from the ſhoare to ſea-wards, then the other rocks which lye alonghſt the ſhoare, there of you muſt take heede.

Steenſoe. About a league to the ſouthwards of Calmer, and 2 leagues to the northwards of Holmes ground, lyeth a poynt called Steenſoe, which is a ſomewhat high rough and very foule poynt, a halfe league longh, lyingh within, a halfe league neare to the towne, to the weſtwards of it runneth in a great bight, where is good lyingh alſo for manie ſhipps, but you cannot come in there, becauſe of the maine foule grounds & dangers, except it be with a very Skilfull Pilot: upon the weſt-ſide, over againſt the poynt ſtandeth a white houſe. The Kingh of Denmarcks fleet of ſhips laye there, in the time of the laſt ſiege of Calmer.

Caſtle of Calmer. When you come ſo farre in, that you leſe the ſouth end of Oeland out of your ſight, then you get the Caſtle of Calmer in ſight, ſayle towards it but ſhunne the ſhoares, as hath been ſayle here before. The Caſtle hath 4 great towers, when the 2 eaſter moſt of the 4 come one in the other, then is the Caſtle about northweſt from you then you come by the Grimſchaer, this is a rock eaſy to be knowne, upon it ſtandeth a maſt, with a Barrel upon the toppe of it, which lyeth much nearer the weſt ſhoare then Oeland, when you get it in ſight, then ſayle towards it. Thwart of the Grimſchaer or Tonholm lyeth a ſuncken rock, about a cables length off from it, and a little more to the eaſtwards, upon it is no more then five foot water.

Grimſchaer. The farewaye is through, betwixt this ſuncken rock and the Grimſchaer about northeaſt and by north ſayle cloſe alongſt by the Grimſchaer, leaving it on the larboard ſide, and then the foreſaid ſuncken rock, remaineth on the ſtarboard ſide of you.

Being a little paſt the foreſayd ſuncken Rock, and Grimſchaer, you come then on againſt the weſt-end of a longh ſmall rock, which lyeth farr to the eaſtwards, towards Oeland, and lyeth almoſt even with the water, at ſome places a little above water, and at ſome places the Sea runneth alonghſt over it, edge then a little up to the northwards, and runne about by the poynt of that rock; beingh paſt that, you ſhall meet on the larboard ſide a low rock, from the which there ſhooteth of a little tavle to the northwards, upon it ſtandeth a little beacon, ſaile alonghſt by it, and beingh a little paſt it, then ſhall the Town lye weſt-ſuythweſt from you, let your anchor fall there in 5 or 6 fathom, there is the right road. If you come to anchor ſomewhat northerly in the roade, you muſt be carefull to take heed of a ſuncken rock, which lyeth not more then 11 or 12 foot under water.

Sunken rock. The Marcks of this ſuncken rock are theſe: when the mills upon the Mulholm are one in the other, with the mill which ſtandeth on the northſide without the town, then you are thwart of the foreſayd ſuncken rock; On both ſides of it, as well to the northwards as the ſouthwards of it, it is deep enough. It is good lyingh there, allmoſt with al windes, but a north and by eaſt winde is the worſt, which blowet there open in. With ſhipps that go not deeper then 6 or 7 foote, men may come to lye at the bridge before the towne.

You may alſo ſaile to the weſtwards of the Grimſchaer: that is, through betwixt the Grimſchaer and the land, with ſhipps that go not deep, but he that ſhall doe it, muſt be verie well acquainted there, for there it is all full of Rocks, ſome above and ſome under water.

The riff of Souderden. From the ſouth-end of Oeland, called Southerorden, lyeth off a great dangerous riffe a league and an half into ſea, there it is 7 and 8 fathom deep, when the Chappell upon Southerorden is north-weſt, a great league from you, there it is 10 and 11 fathom deepe; you may ſound about this riffe in 8 or 9 fathom, but it is not good to come nearer it, when you can doe otherwiſe, and can paſſe it.

Skalloe A halfe league to the northwards of the Towne Calmer, to wit, a little to the northwards of the road, lyeth an Iſland, called Skalloe, which you muſt leave on the ſtarboard ſide, when you are bound from Calmer to the northwards: It is indifferent cleane upon the weſt-ſide, but from the Sweeds ſide there over againſt it runneth aff a ſtone riff, almoſt unto the Iſland. Upon this riffe ſtandeth commonly a ſtonebeacon: it is dangerous to ſayle throug there, or over that ſhoale, for one that is not there very well aquainted: It is alſo Piloth water.

Skegneſſe. The baker. Four leagues to the northwards of the Calmer, on the Sweedsſide, lyeth an out poynt, called Schenknes, or Skegneſſe, thwart of it lyeth a ſmall Iſland, called the Baker, betwixt this poynt and Scallo it is very uneven of depths.

The eaſts coaſt of Oeland is a cleane coaſt, and lyeth north-northeaſt, and ſouth-ſouthweſt.

Of the Iſland Rugen.

For to ſayl out the Elle. TO the weſtwards of the Iſland Rugen men doe ſayle up into the Jelle unto Straelſound. For to ſayl from Straelſound out alongſt the Jelle, goe on north and north & by weſt there lyeth a middle ground, ſometimes there ſtandeth a beacon upon it, and ſometimes not leave that on the larboard ſide, being paſt that, ſayle to the poynt where the wood ſtandeth upon ſo that the Town come behind the wood, you ſhall then ſee a verie high tree, bring that over the flatteſt ſteeple, and keep it ſo a while ſtanding, going on ſtill north and north and by weſt, unto the beacon the Jelle. When as you luffe up about by it weſt, then look out for two trees, which ſtand upon the eaſt ſhoare, ſomewat with within the land, bringh them a ſhips length without the higheſt tree, which ſtandeth upon the ſhoare, and luffe about the beacon, towards the buye. In the mouth of the deepe lye three buyes, which in ſayling out you muſt leave al on the larboard ſide, but in ſayling in al on the ſtarboard ſide. It is not deeper in the mouth of the deepe then 5 and 7 foot, and alſo without, it is farre of ſhoale water.

The Iſland Rugen hath four poynts that lye out, under which men may ride at divers places, as Doornboſh, Whitmond, Jaſmond and the Peert.

Dornboſh. The poynt of Dornboſh lyeth from the Jelle north diſtant 2 leagues, it is hig land with a ſteepe poynt, men may ride under it for n. e. e. and ſ. e. windes. If you will anchor there, then anchor in 3 or 4 fathom, ſo that the ſteepe poynt ſtand n. n. e. from you, or that the Church ſtand over the poynt, or anchor where about that it ſhall pleaſe you, or ſhall beſt convenient, it is there al over ſhallow water and clean ſand ground.

From Dornboſchap to Brontholm, the courſe is e. n. e. 17 or 18 leagues, but Dornboſh and Faſterbornes Riffe lye n. n. w. and ſ. ſ. e. 14 leagues a ſunder.

From Dornboſh to Withmont, the courſe is n. e. & by eaſt 4 leagues. Betwixt them both goeth in a greate Bay, where you may run in alongſt by Whitmont, and have road there in 5 or 6 fatum, for ſouthweſt ſouth & alſo for an eaſtwinde.

Roade under Whitmont. If you wil ſeeke roade under whitmont for weſterly windes, and runne about by the poynt comming from the weſtwards, then come not nearer the poynt, then 7 or 8 fathom there ſhooteth of an uneven ſhoale, which you muſt avoid, being come about the poynt, anchor there in 12, 13 or 14 fathom, that is about a league from the ſhoare, nearer to the ſhoare in 7, 8 or 10 fathom, the ground is not cleane, in 12 fathom you have groſſe ſand, in 13 or 14 fathom ſoft ground, ſo that with harde winds you ſhould need to ſhoe your anchor, you lye there alſo landlock for a w. & ſ. winde.

Roade under Jasmond. Jaſmond lyeth from Witmond e. ſ. e. diſtant 3 leagues. If you will anchor under Jaſmond, for a w. or w. n. weſt wind, then ſaile ſo far about the poynt, that it come be n. n. weſt, or ſomewhat more northerly from you, when you come about the poynt, you ſhall ſee in the ſ. w. or ſomewhat more weſterly from you a little thick wood of trees, upon a plain hill, and on each ſide of that little wood, a little ſharpe ſteeple, and alſo a great tree, like as if it were a mill without wings, when that tree commeth to be ſ. w. and by weſt from you, anchor there in 9 or 10 fathom, there is indifferent ground, according as the ground is there, by the poynt of the land, it is about 13 fathom deep.

Or bring the north poynt n.w. & the other poynt ſ.w. & by ſouth from you, & anchor there in 10 or 11 fatum, there it is good ſoft ground, but it laſteth not longh, ſo ſoone as you finde the ſoft ground you muſt let fall your anchor, for the ground is there at maines places not cleane, or you muſt ſayle farre about both the poynts, there you lye landlokt for a n.w. & n. winde, in 10, 11 or 12 fathom, good ſoft ground.

The Peert. The Peert, which men doe alſo call the great Buk upon Jaſmond is a tuffe of trees or two, and is a poynt that lyeth out with two poynts, where is betwixt them both a fayre Sand-bay, where in is good lying in foure or five fathom clean ground.

Jaſmond and the Peert lye ſouth-ſoutheaſt, and north-northweſt, diſtant four or five leagues.

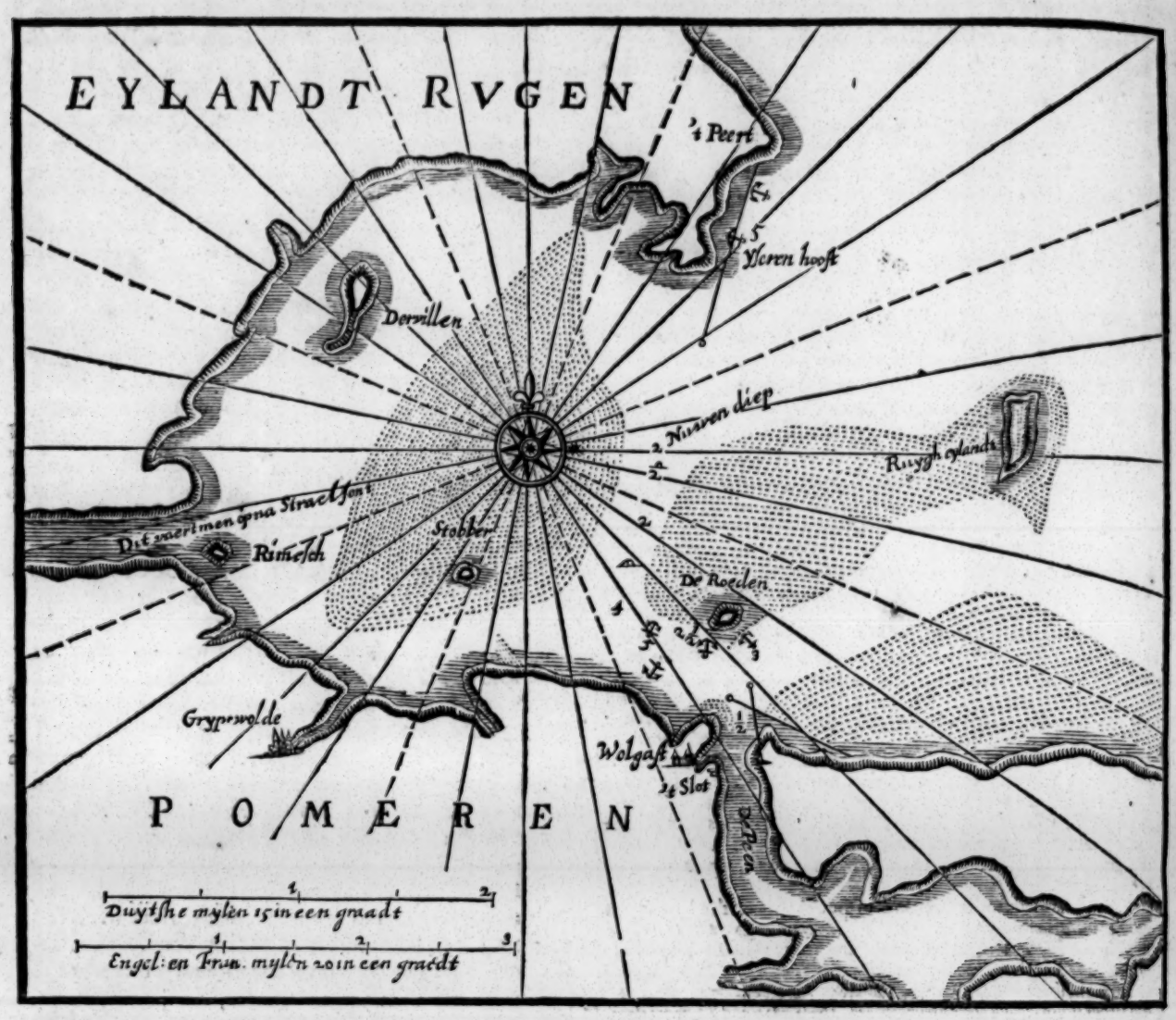
To the ſouthwards of the Peert goeth in that Newdeep, where men doe ſayle through to Statyn.

For to ſail into the new Deepe. About a league ſouth, ſomewhat weſterly from the Peert lyeth a poynt, called the Ironhead, there lyeth off a little riffe, therefore you muſt runne alongſt ſomewhat without that poynt, and being a little paſt that poynt, you can ſee the outermoſt buy of the New-deep, where in lye two buyes in the middeſt of the deepe, ſo that you may ſayle alongſt on both ſides of the buyes, but with ſhipps of great draughts, you muſt run cloſe alongh to the eaſtwards of the buyes, there is the very deepeſt of the channell. By the outermoſt buye it is at ſhoaleſt, there is the barre, commonly there is eleven foot water, or a little more then eleven foot and a half, and ſometimes alſo well 12 foot, but in the middeſt of the Mouth of the deep it is commonly ſtill 12 foot, and ſometimes more.

Upon the Peert lye tree high hommoks, the weſtermoſt of them is the greate ſtone, greate round hommock, when you keep that right without the Ironhead, and then run on ſouth-ſouthweſt then you cannot ſayle amiſſe, althoug there where no buyes in the mouth of the Deep.

The

The NEW-DEEPE.



WHen you come over the Barre, you shall finde againe 4 or 5 fathom depth, benig a little over it, you must goon southeast unto the entrance of the Peen, with that course you leave the Island of the Roeden lyingh at least two cables lengths on the larboard side.

The Roeden

It is there all over good anchoring. Right over against Grypswald lyeth a little Island called Stobber, round about which you may allmost sayle some thingh more easterly the Grypswald lyeth a little riffe thwart from the shoare.

Roade under the Roeden

If you will sayle into the Peen you shall espye (saylingh thus rigt out a head at the east-side of the Peen) two points, keep the eastermost a hand-spikes length without the westermost (for to avoyd a stonye shoale, which runneth off from the west-poynt of the Peen) untill that you come before the Peen. Upon the east-shoare stand two beacons, bringh them one in the other, and run so into the Peen, which lyeth in first southwest but in the commingh in, there is no more then six foot, or six foot and an half water.

If you will anchor under the Island the Roeden, you must be mindfull of a little riffe that lyeth off from the Roeden to the southwards, towards the mayne land, anchor there, either to the westwards or to the eastwards of it, according as the wind shall bee, in 3 fathom, or two fathom and a halfe, so shoale or deepe, as you please, there is the common roade for the ships.

Rough Island.

The Roug Island lyeth from the Roeden northeast and by east distant about two great leagues.

About east northeast from the Roeden lyeth also a channell into the Sea, a little to the southwards of Roug Island, that is good for to runne out with westerly-winds, when you cannot come out at the New-deepe, and also for those that are bound to Danske, or to the eastwards. From the Roug Island lyeth off a little riffe to the southwards, which you must avoyd, and runne through betwixt that and the shoale which runneth from thwart off it is the barre or shoaleft of this channel not lesse then 11 or 12 foot water, that is a short out let, being over you shall geth presently deeper-water. This channell is Pilots-water. Upon the Island the Roeden dwell Pilots, which doe bringh out shippes. The Coast of Pomeren lyeth from the New-deepe to Colbergen east and west about 16 or 17 leagues.

Betwixt them both lye yet two channells, the Swinne, and the channell of Camin. The Swin lyeth seven leagues eastwards from the New-deepe, which runneth trough a little River into the Haff or broade water, right over against the River of Stetyn. Camin lyeth five leagues to the eastwards of the Swin, upon the east-end of the Haff or broad water of Stetyn: that channell goeth through also with a River into the Haff.

Five leagues without the land, when Jasmond is west northwest or thereabout, the Peert west southwest & Roug Island south from you, there lyeth a banck of 7 fathom, upon one place somewhat lesse, and upon another somewhat more, betwixt it and the land towards Jasmond it is again 13, 14 and 15 fathom deep, but to the eastwards of the New-deepe, alonghst by the Coast of Pomeren, it is all shoale-water, 4, 6 and 7 fathom so farre into the Sea, that when you can but even the land of the Swin, there it is not deeper then 7 or 8 fathom, without sight of the land it is 12 and 13 fathom deep.

The Haven of Colbergen, you must sayle into between two heads, untill you come before the Towne. Within in the river, right over against the town, lyeth a Well or Brook which can give all the countred thereabout Salt, of water which they seeth, and yet the water of the river is fresh as Milk, for it is a little water that commeth out of the land.

The

The Coaſt of Pomerland lyeth from Colbergen to Graſhead northeaſt and by eaſt and ſouthweſt & by weſt about 13 leagues, betwixt them both lye two havens more, to witt, Coſlyn and Ruwolde.

Coſlijn. Ruwolde. The haven of Coſlyn lyeth from Colbergen eaſt northeaſt 3 leagues diſtant. And from Coſlyn to Ruwold, the courſe is northeaſt and by eaſt 5 leagues. Into the haven of Ruwold, or the little river, called the Wiper, an indifferent ſhip may go in. It is from Ruwolde to Garſhead northeaſt and by eaſt four leagues.

The land lyeth from Garſhead to the Roſehead eaſt and eaſt and by north 20 or 21 leagues, betwixt them lye the havens of Stolp, Liba and Servenis.

The Stolp. A little to the eaſtwards of Graſhead lyeth the have of the Stolp, which is a river ſo called as the towne, which runneth up to the ſame towne, onely for ſmall ſhipps, although that there doe indifferent great ſhips lade.

From Garſhead unto Reefcoll it is all a white ſtrand, and lyeth eaſt northeaſt from it four leagues. Reefcoll is a high round hill very eaſy to be known, when you come off from

Liba. Brontholm. From Reefcoll to Liba it is 7 leagues.

Liba lyeth upon a great river, called the Oſſe. From

Serne-vis. Liba to Sernevis are five leagues, betwixt them lye the thr. Woollacks, which are three black ruſſes of trees, where by this land very eaſy to be knowne, a little to the eaſtwards of theſe three little Hommoks lyeth a long hill which doth ſhew it ſelfe (when you come out of the weſt) on the weſt-end divided into 3 or 4 little hommocks. Seven or eight leagues to the eaſtwards of the Woolſacks followeth the high land of Roſe-head, which is very ſteep upon the water-ſide. Betwixt theſe Roſe-head and Reefcoll, it is all white ſtrand, and moſt of the land grown with trees.

Sernevis is a little towne lying upon a little of water which with a little river runneth into the Sea, but within, it doth ſpread it ſelfe into a great river. It is from Sernevis to the Roſe-head four leagues.

You may ſound about the Roſe-head in 15 & 20 fathom, & alſo you may well anchor under the Roſe-head, there is better ground then under the Heel. All the ſtrand of Pomer-land is alonghſt the Sea ſide above all black with trees.

Of the Depths.

In the fareway to the northwards of Brontholm alonghſt to Rye, it is deepe betwixt Oeland end Brontholm 35, ſixe and thirty fathom, but comming againſt Oeland, ſo that the ſouth-end come to be northweſt, and by north, northweſt, and northweſt and by weſt 5 or 6 leagues from you, there you ſhall finde very uneven grounds. Southeaſt 5 or 6 leagues from Southerorden, are grounds of 9, 10, 12 and 16 fathom in the nine and twne fathom ſaft ground, that there remaineth nothingh upon the lead, but in the 14 or 15 fathom, it is groſſe redde and black ſtonie ſand ground, almoſt like lett. Nearer againe to Oeland it is againe deeper water & farther from the land it is alſo deeper, but all uneven ground, the ſouth-end of Oeland, being about n. n. w. from you 8 leagues, there it is againe ſometimes 20, 24 and alſo well 10 and 9 fathom in the ſhoaleſt deep, all ſtonie ground, that there remaineth nothingh upon the lead, but in 20 and 25 fathom groſſe redd and black ſtonie ſand. He that ſayleth with a northerly-wind over theſe foreſayd ſhoales, of 10, 11 and 12 fathom, and is bound to Brontholm, leth him goe on weſt-ſouthweſt, from to ſayle clear of Brontholm, if he reckon to come againſt it by night: the Bleeckſche ſide he may boldly runne to by the lead in 17 and 18 fathom. The poynt of Sand-hamner runneth farr of that, as hath been ſayd here before, you may runne about by it in 7 and 8 fathom.

Betwixt the Rockes and Oeland, in the fareway to Gotland it is 38 and 39 fathom deepe eaſy clay ground.

When Southerorden is north-northweſt, ſomewhat northerly a league from you, there it is thirteen fathom deep.

When the little chappel upon Southeroden is weſt-northweſt from you two leagues, there it is 30 fathom deep.

When Southerorden lyeth well two great leagues from you, there it is 27, 28 and 29 fathom deepe.

Betwixt Faſterborne and Brontholme it is 30 and 35 fathom deep, in the fareway, but whe you beginne to come neare Faſterborne, there it is ſhoaler water of fourteene, fifteen and ſixteen fathom.

When you (comming from the weſt) ſayle alonghſt by the ſouth-ſide of Brontholm eaſt ſoutheaſt about a league without the land, and that the eaſt end of Brontholm is eaſt ſomewhat ſoutherly about two leagues from you, there it is deep 7 or 8 fathom groſſe pale ſand, that laſteth until that the foreſayd eaſt end be eaſt and eaſt and by north about a league and a halfe from you all in one depth, but when it commeth to be eaſt northeaſt from you, it is 15 fathom deep, ſmall blackiſh ſand-ground.

Four or five leagues from Brontholme, when the eaſt end (from wh'ch Brewers-riffe runnet of) is about eaſt northeaſt or northeaſt and by eaſt and the north end about north, or north and by eaſt from you, there lyeth a banck of 7, 8 or 9 fathom, and lyeth northweſt and ſoutheaſt more then a great league long, the ſouthermoſt end lyeth abouth ſouthweſt from the eaſt end of Brontholme. He that meeteth with this banck by night, may make ſome gueſſing thereby, for to direct his courſe there after, whether he be bound eaſtwarder Reefcoll, or towards Faſterborne.

About two leagues eaſt ſoutheaſt from the foreſayd eaſt end of Brontholme (to witt the lowe ſand poynt) where Brewers-riffe lyeth of, there it is 24 and 25 fathom deep, ſtonie ground.

About four leagues eaſt, ſomewhat northerly, or eaſt and by north from Meun, lyeth a banck of 11 and 12 fathom, which laſteth from thence with a northweſt and by weſt courſe, untill that Meun come to be weſt-ſouthweſt, or ſouthweſt and by weſt from you, then it is again eighteen, nineteen and twenty fathom deep, ſoft ground.

Faſterborne ſhall then be north-northweſt and Steden weſt-northweſt from you, going on with that ſame northweſt and by weſt courſe, you ſhall then get by little and little ſhoaler-water, to witt, ſixteen and fifteen fathom, and cloſe by Steden fourteene, thirteene, and twelve fathom. He that commeth from Withmondt or Jaſmondt towards the Sound, and runneth alonghſt four leagues without Meun, runneth alonghſt over this foreſayd banck, he that findeth himſelfe by night upon it, hath a good mark for to make his reckoningh there after.

Betwixt Brentholm & the coaſt Pomerland, in farreway, when you can ſee Brontholm it is 26 fathom deep, but ſo farre to the ſouthwards that you can ſee the coaſt of Pomerland, there it is 7 & 8 fathom deep, but without ſight of the land 12 & 13 fathom deep. Alongſt all the coaſt of Pomerland betwixt the New-deepe & Roſe-head, it is alongſt by the coaſt 22 and 20 and alſo well 25 fathom deep.

Betwixt Colbergen & Garſhead it is all flat even ſtrand & ground, without any bancks. In the fareway betwixt Brunthol'm & Reefcoll, it is 27 & 28 fathom deep, but farre to the northwards of it is all leaſt 35 & 38 fathom deep.

Northweſt from Reefcoll 4 or 5 leagues from the land lyeth a banck of 9, 10 & 11 fathom when you come from Brunthol'm, & Reefcol commeth to bee ſoutheaſt and by eaſt from you, then you come againſt this banck, and endeth when Reefcol is ſouth and by eaſt from you.

From this foreſayd banck towards Brunthol'm, it is 25, 30 and 36 fathom deep, ſ'f clay ground, but towards Reefcoll it is ſhoaler.

If you caſt the lead often, ſayling alongſt that coaſt, you ſhall finde more bankes.

You may boldly ſayle alongſt this coaſt by night, or darke weather in 8, 10 or 12 fathom off from Reefcol untill about the Roſehead. Thwart of the Roſe-head it is farre flat, and round as riffe ground. When you come paſt or about Roſehead it is very deep

When the Roſe-head is ſ ſ w. from you about a league, there it is 30 fat. deepe, but very uneven & full of banks, & the ground white groſſe ſand.

Roſehead being ſ e. from you, it is 28 fathom deepe, with red ſtone ground, all moſt like as if it were riffe ſand.

Roſehead being weſt from you, there it is 16 fat. deep, & white ſand grond.

Courſes and Diſtances.

From the poynt of Sandhamer to Somerhaven, the courſe is northnorth eaſt, and north and by eaſt	2 leagues
From Somerhaven to Ahuys north	6 leagues
From Ahuys to Hanno eaſt	6 leagues
From Hanno to the Rocks, the courſe is e. & by ſouth	8 leagues
From the Rocks to the Outlyers north and by eaſt	1 league
From the Outlyers to Chriſtianopell northeaſt and by eaſt	7 leagues
From the Rockes to Calmer firſt n. e. & by e. then n. n. e.	16 leagues
From Calmer to Scheggenes north northeaſt	4 leagues
From the Rocks to Southerorden the ſ. end of Oeland eaſt	9 or 10 leagues
From Sand-hamer to the Rocks e. n. e. ſomewhat eaſterly	16 or 17 leagues
From the north poynt of Brontholm to Ahuys north & by weſt ſomewhat northerly	14 leagues
From the north-poynt of Brontholm to Hanno north & by eaſt	14 leag.
From the north-poynt of Brontholm to the Rock, n. e. northerly	16 leagues
From the north-poynt of Brontholm to Southerorden n. e. and by eaſt a little eaſterly	23 or 24 leagues
From the ſouth-end or eaſt-end of Brontholm to the Rocks n. n. e.	19 leag.
From the eaſt-end of Brontholm to Southerorden northeaſt	24 leagues
From Southerorden to Reefcoll ſouth and by eaſt	22 leagues
From Southerorden to Roſchead ſoutheaſt	28 leagues
From Southerorden to Quinsbrougſt-deepe ſ. e. and by eaſt	48 leagues
From Southerorden to Der Memell eaſt and ſouth	48 agues
From Southerorden to Sevenbergen eaſt	48 leagues
From Southerorden to Derwinda eaſt and by north and e n e	60 leagues
From Southerorden to the ſ. end of Gotland e. n. e. & n & b ſ e.	23 or 24 l.
From Southerorden to the great Karell n. e. ſomewhat northerly	27 leag.
From Faſterborne to Elburgh eaſt and north and eaſt	3 leagues
From Elburgh to Uytſlee, eaſt	10 leagues
From Uytſlee to Goesbeer to Sandhamer northeaſt	3 leagues
From Goesbeer to Sandhamer northeaſt	3 leaghes
From Faſterborn, or from the riffe to Brontholm e. and e and by ſ.	20 leag.
From Faſterborn to the northwards of Brontholm eaſt & by ſouth	20 lea.
But to the ſouthwards of Brontholm, e. & by ſ. ſomewhat ſoutherly	23 lea.
From Uytſlee to the north-poynt of Brontholm eaſt ſoutheaſt	9 leagues
From Meun to Brontholm eaſt and eaſt and by north	21 leagues
From Steden to the north-ends of Brontholm eaſt	24 leagues
From Faſterborn to Withmond ſoutheaſt	15 or 16 leagues
From Faſterborn to Dornboſh ſouth ſoutheaſt	14 or 15 leagues
From Meun to Withmont ſoutheaſt and by ſouth	11 or 12 leagues
From Meun to Dorneboſh ſoutheaſt	9 leagues
From the Jeil to the poynt of Dornboſh north	2 leagues
From Dornboſh to Whitmont, the courſe is n. e. and by eaſt	4 leagues
From Whitmont to Jaſmont eaſt ſoutheaſt	3 leagues
From Jaſmont to the Peert ſouth ſoutheaſt	4 or 5 leagues
From Dornboſh to the north-end of Brontholm e n e & by eaſt	19 leag.
From Whitmont to the north-end of Brontholm n. e. and by eaſt	15 leag.
To the ſouth-end eaſt and by north and eaſt northeaſt	15 leagues
From Jaſmond to the ſouth-end of Brontholm n. e. and by eaſt	13 leagues

From the Peert to the ſouth-end of Brontholm n. n. e.	14 leagues
From Jaſmont to Comyn e. ſ. e. ſomewhat ſoutherly	7 leagues
From the New-deepe to Colbergen, e. and e. and by ſ.	16 or 17 leagues
From Comyn to Colbergen e. n. e.	6 leagues
From Colbergen to Coſſyn e. n. e.	3 leagnes
From Coſſyn to Ruwolde n. e. and by eaſt	5 leagues
From Ruwolde to Garſhead n e and by eaſt	4 leagues
From Garſhead to Reefcoll e. n e.	4 leagues
From Reefcoll to Lyba eaſt and by north	7 leagues
From Lyba to Sernevis eaſt and by north	5 leagues
From Sernevis to the Roſe-head, the courſe is e. & e. & by north	4 leagues
From Kolbergen to Garſhead n. e. and by eaſt	12 leagues
From Reefcoll to Roſe-head, the courſe is e. & e. & by north	17 leagues
From the ſoud-end of Brontholm to the Swin, ſ. ſomewhat weſterly	15 lea.
From the ſoud-end of Brunt-holm to Colbergen ſ. e. & by ſ.	16 leagues
From the ſoud-end of Brontholm to Reefcol, e. and by ſ.	64 leagues
From the ſoud-end of Brontholm to the Eartholms, nord	4 great leagues
From the north-end of Brontholm, or from the Eartholms to Roſe-head, the courſe is eaſt, and eaſt and by ſouth	40 leagues.

How moſt off all the chifeſt points and places of the East-Sea do lye diſtant from Brontholm.

From Bruntholm to Der Memel eaſt	64 or 65 leagues
From Bruntholm to Der Lyba e. & by n. ſomewhat norterly	67 or 68 lea.
From Bruntholm to Derwinda e. n. e.	80 leagues
From Bruntholm to Houbroug, or the ſoutend of Gotland n. e. & by e.	50 le.
From the north-end of Bruntholm to Southerorden, the ſoud-end of Oeland n. e. & by eaſt ſomewhat eaſterly	24 leagues
From the ſoud-end of Bruntholm to Southerorden n. e. ſomewhat northerly	24 leagues
From the north-poynt of Bruntholm to the Rocks or out Rocks, n. e. ſomewhat northerly	16 leagues
From the north-point of Bruntholm to Hanno, n. & by e.	13 or 14 leagues
From the north-end of Bruntholm to Sand-hamer n. w.	6 or 7 leagues
From the n. end of Brontholm to the point of Goesbee, n. w. & by w.	5 lea.
From the north-point of Brontholm to Uytſtede w. n. w.	9 leagues.

How theſe Lands doe ſhew them ſelves at Sea.



Brontholm ſheweth it ſelfe thus, when you come from the weſt.



In this forme ariſeth the Eartholms, being north from you.



The Eartholms, being n. n. e. from you, ſhew themſelves thus.



The Eartholms, being eaſt from you, ſhew themſelves thus.



The ſouth-end of Oeland ſheweth thus, when it is thwart of from you.

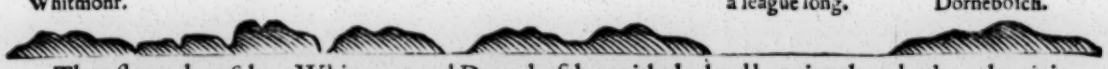


Thus ſheweth Whitmont, when you ſayle alongſt by it, being 3 leagues of from it.



Thus ſheweth Jaſmond, when you ſayle alongſt by it, being 3 leagues from the land.

Whitmonr. Here under is a great bay, a league long. Dorneboſch.



Thus ſhew themſelves Whitmont and Dorneboſch, with the land betwixt them both, when it is ſ. ſ. w. from you, ſo farre that you may but even ſee it from below.

The Roſe-head. Woolſackes. Reefcoll.



Thus ſheweth the land betwixt Reefcoll and the Roſe-head, when you ſayle alongſt by it 3 leagues without the land.



Thus ſheweth the land betwixt Colbergen and the Stolp, when you ſayle alongſt by it about two leagues without the land.

The ſecond Demonſtration.

Where in are ſeth forth

The Sea-Coaſtes betweene Rijghs-head & Derwinda.

FRom the Roſe-head to the Heele, the courſe is ſ. e. 8 or 9 leagues diſtant. When you come neere the Heele, you are allmoſt ground, of in 13 fathom. On the coaſt of the Heele cloſe by the land, it is 24 and alſo 30 fathom deep.

Roade under the Heele. Under the Heele you may anchor in 12 and 20 fathom cloſe by the land, the ground there goeth off very much. If you be a little off from the land, then you are ground off, not very farre without the land you have no ground in 40 fathom. A league to the northwards of the Heele there runneth of a flat from the land, where of you muſt take heed, when you will go to anchor under the Heele, you may ankor on both ſides of the Heele but on the inner-ſide it is ſoft ground.

From the Heele to Danske before the Wiſſell, the courſe is ſouth and by weſt 5 leagues. If you will anchor before the Wiſſell, then anchor to the weſtwards of the Cheſts, or the Weſter-head in 10 or 12 fathom.

Danske Deep. But for to ſayle into the Weſſell, or the Danske Deep you muſt loock for out the two Maſts with barrels upon them, which ſtandeth upon the Cheſts, or the Weſter-head, bring one in the other, and ſayle in right with them, in betwixt the Cheſts, but when you are within Termunde, you muſt chuſe the eaſter ſhoare, for the Weſt-ſhoare is flat, when you come before Bourſams flat, you muſt chuſe the ſide off the Green-ſhoare, and make there faſt with foure hawſers or Cables.

The Quinsbroug deepe lyeth from the Wiſſel, or the Cheſts of Danske eaſt and by north thirteen or fourteen leagues. From the Roſe-head eaſt ſoutheaſt ſoutherly 19 or 20 leagues, and from the Heele eaſt ſoutheaſt, eaſterly, twelve leagues.

From

Caerte van

PRVYSSEN

en Coerlandt, van Ryghshooft tot der Winda.

't Amsterdam,

By Iacob Theunisz. op t water in de Lootsman.

Gotlandt.

Der Lyba

C O E R S A N T

Duytsche mylen 15 in een graet

Spaensche mylen 17½ in een graet

Italiaensche Fiat mylen 20 in een graet

Quinsbroug-deep. From the Wissel to the Quinsbroug-deep & all alonghst to the northwards of it, it is altogether a faire white sandy strand, upon both sides off the deep stand some withered trees, to see to as if they where burnt, but upon the southside stand two Capes, or beakons. If you will sayle in there, bring the Capes one in the other, when you come in 10 or 8 fathom, and sayle in so right with them, and so you shall run right with the buyes, which lye on both sides of the Deep to 8 or 10 in number, to witt, on each side foure or five sayle in betwixt them, untill you come within in the Kettell. There is on certainty to be written of the lying in off this channell, as also off the Dans deep, where unto men might trust, for by reason of the flouring of the Freshuts, and with great streaming of the yce, they doe change oftentimes, & sometimes in short time, but the lords of the land there have very great care to give charge, that they be alwayes well set with buyes and beakons.

For to anchor in the road without the deep, then anchor so that the poynt of Loocksteed lye about north & by east from you, there it is 8, 9 and 10 fathom deep.

Within the deep in the Kettell, men do lye to tarrie for the wind in 3 fathom, and 3 fathom and a halfe.

For to sayle up the Haff go out of the Kettel about east untill you come against the Heert, and southeast over it and then alonghst the Haff admist the channell unto the Haverstrome, the course is most east. Being over the Heert edge somewhat to the South-shoare for to avoyd that Riff which lyeth off from the North-shoare about a third part into the Haffe, to witt, from the poynt by east Fishouses, there lyeth a little buye upon it, and come no neerer it then 12 or 13 foot. The right fareway is to the southwardes of it 14 and 15 foote soft ground, untill about Brandenburgh, from thence further it is by little and little shoaler 12, 11 and 10 foot upon the Haverstraw. When you get the steeple of Quinsbrough in sigt, then you shall see also by it a round black little wood; keep the steeple on the north or eastside of that little wood, untill that you be past Brandenburgh, then let the steeple come a ships length to the eastwards of the little wood of trees, and sayle so rigt with it, till you come by the buyes or little trees of the Haver straw, there you must run throug amidst the channel betwixt them until you come into the Pregell which lyeth up n. e. unto the towne.

From der Pillo to Quinsbroug are about 8 leagues, but Melven to Melven it is about 9 leagues, you must also sayle up there amidst the channell about southwest, but the poynt over against the Pillo, where the Castle Terbaly standeth, you must avoyd somewhat, which runneth far of flat.

Foure or five leagues north and north and by west from the Quinsbroug-deep lyeth the poynt of Brusteroort, and betwixt them both Looksteed, where upon standeth a Castle with a Church, not farre one from the other, and also two high Hommocks, or hills, and the land thereabouts is all full of trees.

Der Memel. From Brusteroort to the Deepe off Der Memell, the course is northeast & by north sixteen or seventeen leagues. It is there betwixt them both a faire strand, & the land lyeth in a great Bay. The deep of Der Memell lyeth in northeast & northeast & by east, and is two fathom deep, within it you come into a great Haffe: you may runne to the westwards about the poynt, and anchor there where you will.

From Der Memell to Heyligena, the Coast lyeth north and by east 4 leagues.

From Heyligena to the poynt of Sevenbergen, north & by east, five leagues, that is with Hommocks and hilly land.

Foure or 5 leagues north and by east from Sevenbergen Terlyba. lyeth Terlyba. There goeth into the land a little River, but there can go in no shippes, there is no more then 6 foot water. On the north side off the River standeth a Gentlemans-house or Castle, with a turreth upon the midst of it, the north-end of the House is covered with boards, and the south-end with red tyles, to the southwards or the eastwards of it stand also some Houses, covered also with tyles, in betwixt two woods to see to. If you will anchor in the road of Terlyba, then anchor a little to the southwards off the village so that the foresayd Gentelmans-house with the turret doe stand east and by north from you in 4 fathom and a half, and 5 fathom lesse two foot, there is the best road & ground that is there abouts. When you come out of the Sea, and fall with the land to the eastwards or to the northwards off Terlyba, you shall see within the land a black wood, and the houses in a ragged valley of Sandhills.

From Terlyba to Derwinda, the course is north-northeast 16 or 17 leagues, betwixt them both the land lyeth in a Bight, so that the coast alongst by the shoare lyeth not so right, especially 4 or 5 leagues by south Derwinda, there is falleth away into a great Bight, which men do call Sackerwyke, and also with more smaller Bights & Bayes towards Terlyba. Sackerwycke.

About 4 leagues to the northwards off Terlyba lyeth a poynt called Stickeroort, or Steenoort, thwart there of it is very flat, so that a good wayes from the land, it is not deeper then 9, 10 and 12 fathom, all stony uneven ground, off this poynt you must take good heed, and not come to neere it. Anno 1599, in the Spring a man of Hoorn sayled somewhat neere to this shoale, and come on ground upon an unknowne Rock, and los shis ship. To the northwards of it, towards Derwinda thwart off Sackerwycke it is all cleane ground, and farre flat, at mony places a good wayes from the land not deeper then 6 and 7 fathom clean sandy ground, good for to anchor in, when you lye by there with a northeast winde, and can get nothing with turning to windwards come neere the shoare every where without feare in 4 or 5 fathum. Steenoort.

For to know this coaste of Coerland, then remember these places here under written. For to know Coerland.

At Derwinda standeth a Castle with three Towers, which is covered above with red tyles, and under it is white, about a league to the southwards of Derwinda, lyeth the Bakeovens, which is nex to Domesnes, the best land to be known of Coerland, it ariseth first when you beginne to see the land, in a white Sandhill, the top where of is full of trees, but when you come so neer the shoare, that you can see the other land also then there ariseth more land with Hommockes, so that then it not so easy to be known. Bakeovens.

About 4 leagues to the southwards of it in Sackerwycke lyeth yet a Hommock or hill full off trees with some little Hommockes to the eastwards of it, when you are thwart of Derwinda, you may even see it half wayes up to the top, but not well from below. This Hommocke is called by some Duke d'Alves Castle, and lyeth most alone: the land, as well to the southwards as to the northwards of it, is most all even and playn land. Duke d'Alves Castle.

About 6 leagues to the southwards of the foresayd Hommock, and 5 or 4 leagues and an half to the northwards of Terlyba, lye also two high Hommocks close on by the other, the land to the southwards of them towardes Terlyba, is to see to farre of (when you are thwart of these two Hommocks, or somewhat to the northwards of them) as iff it where all broken land, thwart of this about 5 leagues from the land, or when you can but even see the land from below, it is 30 fathom deep.

When you begin to come about Derwinda within 2 or 3 leagues of the land, there lyeth a banck of 12, 13 and 14 fathom: some say that west and by north from Derwinda there should be no more upon that banck then 5 or 6 fathom water, it is about a halfe league broad betwixt the banck and the land a league without the shoare, it is againe 20 and 24 fathom deep. Banck by Derwinda.

If you will anchor before Derwinda, then bringh the foresayd Castle about east southeast from you, then it commeth almost behind the high land, anchor in 5 fathom from the shoare, there is the best roade.

Of the depths & grounds abouts these Coasts.

Betwixt the Heele and the Rose-head, but neerest the Heele, there it is 33 fathom deep, and the ground is there white sand.

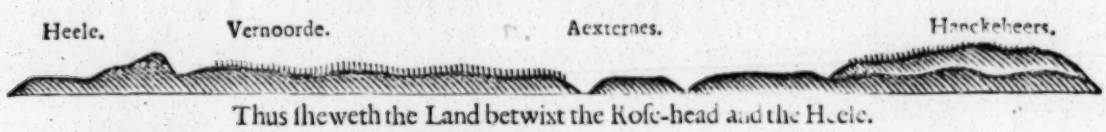
At the Heele in the roade it is 25 fathom deep, the ground black-sand, and going off to 30 and 40 fathom.

Betwixt the Heele and Quinsbrough it is very deepe, comming neere the Heele it is steepe, but towards Quinsbrough and the Nerungh it goeth up plainly flat.

How these Lands doe lye one from the other, and from other Lands.

From the Rose-head to Axternes southeast	4 leagues
From Axternes to Vernorden southeast	1 league
From Vernorden to the Heele south southeast	1 league
From the Heele to Danske south and by west and s. s. w.	5 leagues
From the Chest or Willel off Danske to the Deepe off Quinsbroug east & by north	13 or 14 leagues
From the Deep of Quinsbrough to the poynt of Brusteroort, north and north and by west	4 or 5 leagues
From Brusteroort to the Deep op Der Memell, the course is northeast and by north	16 or 17 leagues
From the Rose-head to Quinsbrough deepe, east southeast somewhat southerly	19 or 20 leagues
From the Heele to Quinsbrough deepe, e. s. e. easterly	12 leagues
From the Rose-head to Der Memell, e. n. e. somewhat easterly	29 leag.
From the Rose-head to Sevenbergen n. e. and by east	33 leagues
From the Rose-head to Derwinda, northeast	53 leagues
From the Rose-head to Dageroort, n. e. and by north	80 leagues
From the Rose-head to Eastergore, north and by east	45 leagues
From the Rose-head to Houbroug the south-end of Gotland, n.	35 leagues
From the Rose-head to the south-end of Oeland n. w.	28 leagues
From the Rose-head of Hannoe, the course is n. w. and by west, and west northwest	43 or 44 leagues
From the Quinsbroug-deep to Houbrough the south-end of Gotland north northwest	48 leagues
From Quinsbroug-deepe to Southeroorden, the sout-end of Oeland n. w. somewhat westerly	48 leagues
From Der Memell to Houbrough northwest	37 leagues
From Der Memell to Heyligena north and by east	4 leagues
From Heyligena to the poynt off Sevenbergen, n. and by east	5 leagues
From Sevenbergen to Der Lyba north and by east	4 or 5 leagues
From Der Lyba to Derwinda north northeast	16 or 17 leagues
From Der Memell to Brusteroort southwest & by south	16 or 17 leagues
From Der Memell to Danske southwest	32 leagues
From Der Memell to the Rose-head w. s. w. somewhat westerly	29 leag.
From Der Memell to the Eartholms, or the north-end of Bronthoim, west	64 or 65 leagues
From Sevenbergen to the Rose-head s. w. and by west	33 leagues
From Sevenbergen to Southerourden west	48 leagues
From Derwinda to the Rose-head southwest	53 leagues
From Derwinda to Brunt-hol west-southwest	80 leagues
From Derwinda to Houbrough west somewhat southerly	37 leagues
From Derwinda to Eastergore the course is west and by north	29 leagues
From Derwinda to the Gotschan north west	31 or 32 leagues
From Derwinda to Dageroort north somewhat easterly	31 leagues

How these Lands doe shew them selves at Sea.



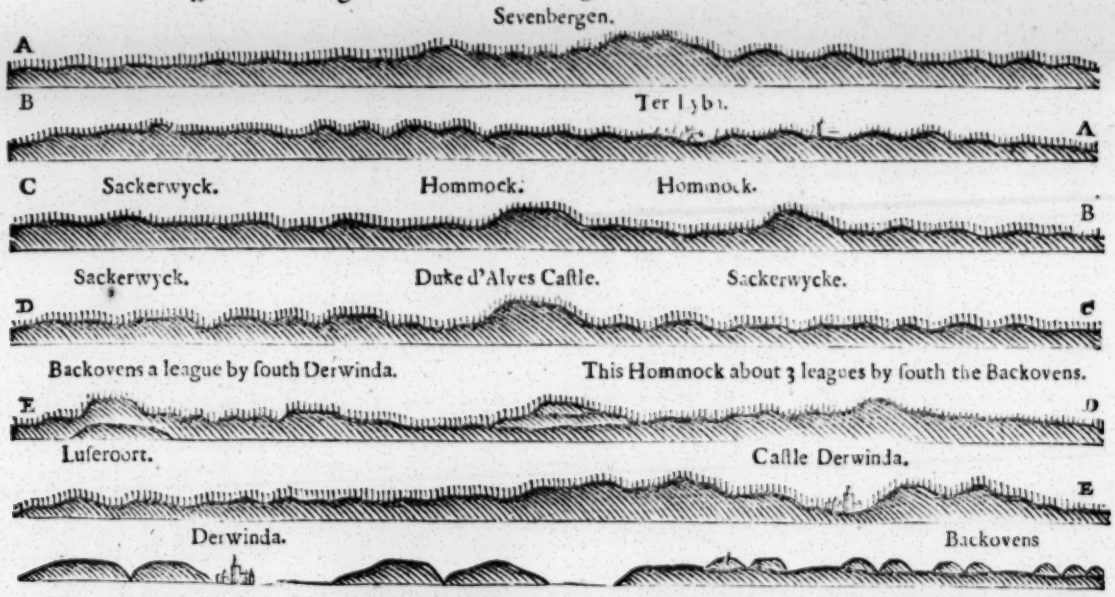
Thus sheweth the Land betwixt the Rose-head and the Heele.



Thus sheweth the land betwixt Quinsbrough deep and Brusteroort.

Thus sheweth it selfe the coast of Coerland about Sevenbergen, when you sayle alongst by it a league without the land.

The coast of Coerland from Sevenbergen alongst by Derwinda unto Luseroort sheweth, as is portrayed in these six figures following, the like makes belong one to the other, as AA, BB, CC, DD, EE.



When Derwinda doth shew it selfe first, being east from you, it sheweth it selfe thus with the land, as well to the northwards as to the southwards, but when the Castle doth begin to come east southeast from you, then it goeth behinde the land, that you cannot see it.

The third Demonstration,

Where in are Described

The Sea-Coastes betwixt Derwinda and Revel, and the Islands of Aland.

THE lying Derwinda, & how men shall know it, is here before declared.

From Derwinda to Lyserorte, the coast lyeth n. e. and by north foure leagues, and from Lyserorte to Domesnes east northeast twelve or 13 leagues. When you are thwart or Lyserorte, you can perceive no poynt, it seemeth to be all an even right coast from Derwinda to Domesnes, but comming from Derwinda or Domesnes, and being a league or two to the eastwards or to the westwards of it, you can see well that it is a blunt poynt, lying out. Thwart of Lyserorte runneth of a great uneven shoale, at least two leagues into Sea, but you need not feare of it, you may runne over it in four, five or six fathom by the lead, like as also alongst all the coast of Coerland from Derwinda, until about Domesnes.

To the westwards of Lyserorte the land hath a little bight,

Pascaert van

LYFLANT

ende Ooſt-Finlandt, van der Winda tot aen de hoeck van Alandt ende voort tot Revel.

Der Winda

Luſer oort

Doomberg oft blauwe bergh

Dompſkes

Kouwarmyck

Ryga

Dunaemunde

Dagelyrmulen

Reed

Ulyck

OESEL

Aberchargh

Arensborgh

Ibrick

Rodera

Pater noſter

Kyn

Mamo

Sorythholm

Ilemſhel oſte Sales

Parnou

Noort bodem

Boeghschaeren

Erks

Casselholm

Corpe Landt

Merscharen

Mysschoppen

Egatten Alhs

Aboo

Dago oort

Da-

-ger

oort

Gruyshoek

Dalen

Schurchmes

Osscholm

Grijsholm

W. Grijpsgrundt

Oyes holm

Cleine Roge

Grote Roge

Revel

S Brigitta Closter

Wolffs oort

Rewalsteen

De Wolff

Aland

Lagskar

Lagsk.

Esora

Helsinga

Hano

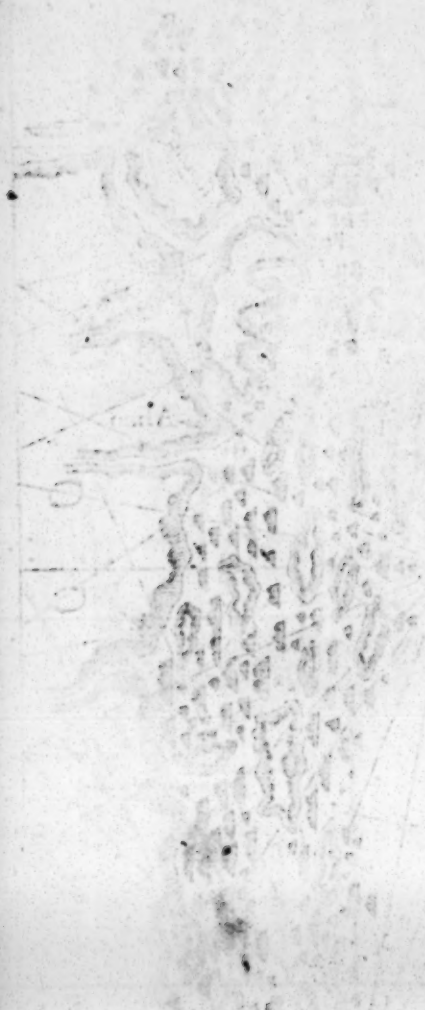
Eccarde

Ekesondt

Duytsche mylen 15 in een graet

Spaensche mylen 17½ in een graet

Eng. en Fra. mylen 20 in een graet



bight, there you may anchor for n.e. e. n. e. and east winds: when it bloweth hard, and that you can do no good with turnig to windewards, you must bringh the point of Lyserorte e. n. e. from you in 7 fathom there is clean sand-ground and good lying.

The land betwixt Domesnes and Derwinda is very easy to be known. At the poynt of Derwinda it is high, and goeth sloping down by little and little to the eastwards unto Lyserort: Likewise 3 or 4 leagues by west Domesnes lyeth a high blewhill, called the Doembergh, which is steep on the east-side, and goeth by little & little sloping downe to the westwardes unto neare Lyserorte, so that there two hig double blew lands do go down into a valley one against the other, the low land betwixt both is Lyseroert. The poynt of Domesnes it self is low sandy land, it lyeth out about 3 leagues to the eastwards of the foresayd Doembergh: but all that is together full of trees.

The southend of Oesell lyeth from the poynt of Domesnes n. w. and by west about 6 leagues asunder, there runneth off a great Riffe, about south and by west, and s. s. w. into Sea, towardes the shoale Lyserorte, called Swalverorte, that is a dangerous riffe, at least tree leagues long, verie hard and uneven, at some places towards Oesell it lyeth dry above water, and at some other places it is two, two and and an half and 3 fathom deep. To the westwards of that riffe lye also manie uneven Dwaelgrounds a good wayes off from the land, which lye alongst the coast of Oesel to the northwards, which are at some places not deeper then two, three and four fathom.

If you will goe to Rye, and comming out of the Sea doe fal with the land about Derwinda, the leave not the coast of Coerland, but runne about by it upon the lead, al along unto Domesnes in 4, 5, 6 or 7 fathom, according as you have the wind, that you may not fall without, or to the westwards of that riffe Swalverorte. The channell betwixt Coerland and that foresayd riffe is 14, 15 and 16 fathom, but very uneven. The ground upon the shoale thwart of Lyserorte is at some places also very uneven for to sound, sometimes 6, sometimes 8 and 9 fathom, the one cast at least 2 or 3 fathom more or lesse then the other, and not very farre from the land, but you need not feare of it, you may bouldly runne to the shoare in 4 and 5 fathom.

But it (when you come out of the Sea) you are past Lyserorte, and come with the land to the northwards of it against Oesell, then you have deeper water, for not far to the westwards without Swalverorte it is 13 fathom deep. If you can see Oesel and Coerland, and that he Doemsberg be e. s. e. or s. e. and by east from you, then runne one s. e. until you come neare Coerland, for to avoid Swalverorte, and then alongst by it upon your lead towards Domesnes, as is beforesayd. Or when as you have the Doemberg e. s. e. from you, then keepe it so standing from you, and sayle in so rigt with it, and then you shall (without hurt) runne alongst over the tayle of the outermost shoale of Swalverorte, it shoaleth up tere very sone and suddainly from 13 or 15 and 9 fathom, but if you bringe the east-side of the Doembergh not more southerly from you then e. s. e. and s. e. and by east then you shal not meet with any dangers of the Dwaelgrounds, not of Swalverorte, you shall thus saile alongst at least 3 leagues over the Dwaelgrounds and Swalverorte, over very uneven grounds, the one cast at least twelve, the other nine, and also wel 7 and 6 fathom, but goe on your course without feare, when as the Inner-side, or east-side of the south-end of Oesel commeth to be north & north and by east from you, then you are over the riffe, within al the foule grounds that migt hurt you when as that you get then 13 or 14 fathom, then sayle bouldly without fear towards Domesnes.

If it should happen, that with a n. w. winde, you should fal with the land to the northwards of Derwinda or Lyserorte, and should fear to come neere the Coast of Coerland, then keepe not further off to Sea, then that the east-poynt of Doemberg be e. s. e. from you, when as then you bring the east-side of the south-poynt of Oesel n. n. e. from you, then you shal runne alongst over Swalverorte in 7 fathom. Betwixt Oesel and Coerland it is 16 and 17 fathom deep. When as Domesnes is s. e. and by east, and the soud-point of Oesel n. w. by north from you, and that you are a like neare to them both there it is 18 fathom deep.

From the poynt of Domesnes runneth of also a riffe n. e. and by north, or a little more northerly a league and half into the Sea, which is on the east-side very steepe, but on the west-side somewhat flatter.

When you come from out of the west, and are bound to Rye you may runne about by it upon your lead, in 5, 6, 7, 8, 9 an 10 fathom, so neare as you will, but according as the winde and weather shal be. I know of some that have sounded about it in 4 and 4 fathom and half: but he that wil runne so somewhat neare about it must be very carefull in using of his lead, and not let it rest.

Not very farre from the riffe, on the west-side it is 12 & 13 fathom deep. When as the poynt of Domesnes; where the with red trees stande upon come to be s. s. w. from you then you come on against the west-side of the riffe, when that point is s. w. & by south from you, then you are right thwart of the point, but when it is s. w. & s. w. and by west from you are about the riffe, and then you may bouldly goe on s. e. towards Rye. Domesnes and the Deep of Rye lye s. e. and n. w. 20 leagues distant.

About 8 leagues to the eastwards or to the southwards of Domesnes, runneth off another riffe from a poynt which you may sound about in 5 and 6 fath m. The land betwixt Domesnes and that poynt lyeth about s. s. e. and n. n. w. but to the southwards of it, falleth away to the south; so that betwixt this poynt, and the Deep of Rye, there is a great bay, which is called the Kowerwyck: somewhat to the southwards of this point in the bay, lyeth some high land, which lyeth from the Deepe of Rye west and by south, and east and by north. It must be very cleare weather when you can see it, lying at anchor before the deepe of Rye. Kower wyke.

When as (comming from Rye) you shal be somewhat to the southwards in the Koperwyke, & come running out of there by the shoare, this foresayd point hath thus oftentimes been mistaken for Domesnes, because that you can see no Land without it, but when as you come about the poynt, you shal againe see the Land out a head, then you are yet about 8 leagues from Domesnes.

Under the poynt of Domesnes you may anchor on both sides, as wel to the westwards as to the eastwards. If you wil anchor to the westwards of it, then anchor in 6, 7 or 8 fathom, there you have good sand-ground, and sheltred for east and s. e. winds. If you wil anchor to the eastwards of it, then anchor in 6 or 7 fathom, a little within the poynt of the land, so that the poynt be north or north & by west from you, there is good sandie ground, and good lying for a s. s. w. w. n. w. and n. n. w. winde: the poynt of the riffe lyeth then from you about n. n. e. a league & a half. If you wil anchor further from the shoare, so that the point of Domesnes be n. w. or n. w. & by north from you, there it is 18 & 20 fathom deep and soft ground.

If that you are comming of from Rye against the riff of Domesnes, you wil sayl about it, then you must runne far enough about without it, or if you will take it somewhat near, you must be exceeding carefull in using your lead. It is (as hath benesayd) verye steepe on the east-side, with a n. w. waye (which runneth thwart into the riffe) you shall have the one cast 12, 9 or 8 and the next cast 4 or 3 fathom, if you fal within the point of the riffe. But if you habe been at anchor under Domesnes, and set sayle from thence and will saile about it by your lead. Goe from thence n. n. e. & n. e. and by north, that runneth most alongst by the riffe. When the point of Neffe commeth about west from you, then it wil be by little and little somewhat shoaler, you must not spare your lead, but must sound of then. With a n. w. course come not nearer it then in 9. 10 or 12 fathom. When the point of Nes commeth to be southwest from you, you may run about, sound it so in 5, 6 or 7 fathom, then you come to the side of the riffe, when that is southwest and by south from you, then you are right thwart of the point of the riffe, but when it is south southwest from you, then you are about the riffe, go then west southwest or more southerly towardes Coerland, and runne alongst by it, in five, sixe or seven fathom (according as the wind shall be) toward Luseroort. Road under Domesnes.

If you sayle from Rye with an east or n. e. winde, and shall sayle by night about the rif, then set your course, so that you be sure you run farre enough alongst to the northwards or without the Riffe, and keepe that course untill that you come neare the grounds of Ambroock or Oesel in 15 or 16 fathom, then you shall be without doubt past the riffe, then goe on a while s.w. untill that you reckon the poynt of Domesnes to be s. e. or somewhat more easterly from you, then edge up to the Coast of Coerland by your lead, and runne alongst by it, in 4, 5, 6 and 7 fathom, as hath been beforesayd.

Round. East and by north, somewhat easterly, 8 leagues from Domesnes lyeth the Island Round: you may runne round about it by your lead, in 6 or 7 fathom: All alongst the southwest-side it is al foule and sharp rockie ground, therefore come not nearer the shoare there, then in 6 fathom. South southeast about a half league from the south-poynt lyeth a little plate, where upon it is not deeper then 6 foot, there hath once a man beaten of his rudder. It lyeth betwixt 7 and 8 fathom deepe, for to avoyd that, take thereabouts the sounding of the shoare in 5 or 6 fathom, & then you run throug betwixt it and the shoare, or els if you keepe in 8 or 9 fathom, then you runne about without it.

Road under Round. If you will anchor under Round for a s. s. w. s. w. or w. s. w. winde, then runne about the sout heast-poynt, untill you come to the east-side, there is a little bay, where stand a few houses with a Chappell, which you can see when you come somewhat neare to the shoare, anchor thwart of it in 5 fathom, so that the Chappell doe stand s. w. from you, there is the best road under Round, beingh clean sandy ground, but when it bloweth hard the Sea commeth rouling in. At other places it is not very cleane.

The fareway betwixt Round and Domesnes is 22 and 23 fathom deepe, and betwixt Round and Duynemond 23 and 24 fathom.

From Round to the Deepe of Rye, it is s. s. e. 15 leagues. Before the Deepe of the River Duyn, you may ankor in 10 fathom, either to the southwards or the northwards of it, where you please.

The Deep of the River of Rye. The Deep of the River of Rye is Pilots water, as well in sayling up, as sayling of. How men shall sayle there in or out, it is not possible to describe, so that men might relye upon it, for by reason of the continuall scowringh of the Stream, and specially by some extraordinarie great Freshuts, and strong drifts ofte Yce, the depths and shoaler do there often shift and change, where of every one that is bound thiter may be mindfull of.

From the Deepe of Rye to Parno, the course is n. n. e. and n. e. and by north 25 leagues, betwixt them both, about

Lemsael. 14 leagues from Rye lyeth a little towne called Lemsael or Sales, there goeth in a little deepe of 8 foot water. Before that Deepe lyet a banck, which you may sayle about on both sides, & come within it, there it is 3 fathom deep. The

Kinne. Island Kyn lyeth from Sales n. w. and by west 7 leagues: from Round east and east and by north 7 leagues, and from the Deepe of Rye north & by east about 14 or 15 leagues. It is a little low Island, about two leagues long, and hath round about it most foule ground. Betwixt Kyn and the coast of Lysland it is 7 leagues broad, and the rigt deep betwixt them both is 8 and 9 fathom deep.

Northwest 8 leagues from Round, and north and by east

Ambrook. 7 leagues from Domesnes lyeth Ambroock, that is a little Island, which is round about foul, with sharp stony ground, and lyet two leagues distant from the coast of Oesel. Betwixt Round and Ambrook but nearest Ambrook lye many une-

Dwael-gronds. ven Dwael-grounds, of 3, 4 and 5 fatum. Ambrook & the soud-end of Oesell lye e. n. e. somewhat northerly, & w. s. w

Roade under Oesel. somewhat southerly, about 5 leagues distant. Under the south-poynt of Oesell on the east-side is a good roade for westerly winds. If you will anchor there, then anchor in 8 or 7 fathom, so that the white Church, which standet somewhat within the southermost-poynt, doe stand west and by soud from you there is good soft clay ground, & you shal lye sheltred for a w. & w. s. w. winde. The ground is there very even & flatt, when as you get the 7 fat. & saile towards to land it continueth long al one depth of 7 fatum, untill you come very close by the shoare before it will be shoaler.

It is there all alongst by the east coast of Oesel flat ground of 3, 4 and 5 fathom.

For to sayle from the south-end of Oesell unto Arentsbergh through within Ambroocke, you must leave two thirds of the water on the larboard-side towards Oesell, and on third part on the starboard-side towards Ambrooke, there you shall have about 7 fathom water, and soft claye ground, towards the Coast of Oesell it is full of uneven Dwale-grounds; alongst by the west-side of Ambrooke you cannot lightly take hurt.

Arentsberg lyeth from the soud-end of Oesel n. e. distant Arents bergh 8 leagues, but from the Island Ambroock n. n. w. 4 or 5 leagues. Upon the west-side of Oesell, the coast lyeth of from the soud-end unto Hodsoorte, with divers bayes about n. n. w. & s. s. e. 12 leagues, betwixt them both lye two lade places, Wyke & Reeck. Alongst this west coast of Oesell lye verye manie uneven and foul grounds, where of men must take very good heed.

Hondtsoort, the n. w. poynt of Oesell, and the poynt of Dagerorte lye n. n. w. and s. s. e. about 8 leagues distant. Betwixt them both is a great haven there runneth also a Channell through, but it is so shoale that no ships can go throug, and all over sharp and uneven ground. Upon Da- To gerorte standeth a high Tower which the Whorty Counsel upon of the towne of Revell caused there to be builed, for to know the land by, which men may see on the both sides of Dagerorte farre into Sea, and also may see over the land farre in the foresayd baye.

Under the poynt on the south-side of Dagerorte is good lying for north and n. e. winds and cleane sand ground, you may sound about the poynt of Dagerorte in 7 or 8 fathom, on the north-side of the poynt is good road for southerly winds.

From Dagerorte to Syburghnes, the coast lyeth e. n. e. 7 leagues. Betwixt them both, to witt, 3 leagues from Dagerorte, and four leagues from Syburghnes, lyeth a ground, going flat of thwart from the land northwest into Sea, at least 5 or 6 leagues, allmost in manner as the great luttilh riffe, is first of 3, 4, 5, 6 and 7 fathom deep, & Waxeth deeper by little and little towards the Finnish Scheers, where at last it runneth to nuthing.

About three leagues without the land of Dagerorte, north and north and by east from the hig tower, there lyet a suncken rock which is very steep, where upon there is no more then 10 foot water: A man of Ossanen hath beaten upon it, which went no deeper then 11 foot and a half, presently after the stroke he cast the lead, and found 5 fathom depth. The tower of Dagerort was then from him south and south and by west.

Syburgnes is an out poynt, with two poynts, from each of which shooteth off a riffe, betwixt these two riffes is a faire flat sand strand, where you may anchor so neere the shoare as you will, in 6, 5 or 4 fathom.

A little to the westwards of the westermost poynt of Syburghnes, not farre from the land lyeth a shoale under water, about so great as a shipp, where upon it is not deeper then 12 foot.

From Syburgnes to Oetgensholm, the course is e. & by n. 7 leagues betwixt them bot goet in the Moensound.

To the southwards of Oetgensholm goeth in a great bay into the land, where in lyeth an Island, and behinde it a little towne, called Ha-psael, there you may anchor where you will. On the southwest-side of this baye, runneth of a great shoale or ledge of rocks at least a great league into the Sea, which is very broad, you may runne in alongst by it into Moensound.

East n. e. and w. s. w. from the east-hoeck of Oetgensholm a league in Sea lyeth a cliff under water, where upon in the yeare a man of Harlingen is cast away.

From Syburghnes to the Oxeholm and the Grasholm, the course is south southeast 4 or 5 leagues, the Grasholm are two little greene Islands, and the Oxholme lyeth about a league to the northwards of the Grasholm, about which you may sayle, and anchor round about, a little league northeast from the Oxholm lyeth a ground loose from the land, which you must avoyde, called the wester Grasgrounds, there are two shoales, which are called the

Gras-

Gras-ground. Gras-grounds, the other Grasground, which is called the eastermost, lyeth over against the Grasholm, towards the riffe of Hapsael, upon which there is no more then five foot water. He that will sayle into the Moen-sound, must take heed there of.

Moen-sound. He that wil sail off from Oetgensholm throug the Moen-sound, must goe on s.s.w. to the Grasholm, & sail in close by it, for to avoid the Grasground, which lyet to the eastwards over against it. From the Grasholm to the point of the Oesel, where the great three standeth upon, the course is east 5 or 6 leagues. From the Grasholm towards Oesell lye four little Islands, each about a league one from the other.

When as you sayle from Grasholme towards Oesel, you must sail alongst by these little Islands, leaving them lyingh about two or three cables lengts on the starboard side, until that you come to the land of Oesel, over against the great three. In this fareway it is 5 fathom deepe.

The castle of Moen-sound. When as you come sailing so alongst past the Grasgrond you shall meete with an Island on the larboard side, to the nordwards of it goeth in the Depe unto the castle of Moen-sound in 3 fatom, but sometimes it is shoaler, for there it is al full of sand. To the southwards of the same Island goeth in another Deep, which you may sail throug, untill you come to the end of Oesel, and then you leave the two little Islands by the south-end of Oesel lying on the starboard side. But the right & best deep goeth from the foresaid great three, in alongst by the land of Oesel, which is 3 & 4 fathom deepe, and at last it will be 6, 7 & 8 fathom: when you saile alongst there, you leave the foresaid two little Islands by the south-end of Oesel lying on the larboard side. From the great tree to the first little Island, the course is e. s. e. 8 or 9 leagues, and then from the first little Island to the second southeast and forth to the end of Oesel east and by south.

Pater noster. From that end or northeast point of Oesel runneth of a foul riffe, a great half league into the Sea, called the Pater noster, which you must avoyde.

From this northeast-point of Oesel unto Parno, the coast of Lysland lyeth e. s. e. and w. n. w.

When you come about that poynt, you may sayle into the sea or buye of Rye, where you will, west & by north to Arentsberg, s.w. or somewhat westerly to Ambroke, south somewhat easterly to Round, s. e. & by south to Kinne, or where you will, the lying of Kinne is described here before.

Magno and Sterckholm, Parno. From Kinne to Magno and Sterckholm all alongst unto Parno, the course is n. e. & by n. 8 leagues. Thwart of Magno & Serkholm it is betwixt Coerland & the Islands 5 & 6 fathom depe, & alongst Coerland altogether a fayre strand.

Parno lyeth in a great Baye, it is there in the roade 3 and 4 fathom deep. For to anchor there, you must anchor so that the steeple of Parno stand n. n. e. from you, there is the best roade.

Oetgens holm. Oetgensholme and Syburghnes lye east & by north and west and by south 7 league distant one from the other.

You may sayle round about Oetgensholme, and anchor under it for nordherly & northwest winds in 6 or 7 fathom, but you must beware of the Blinde as before is sayd.

Great Roge. From Oetgensholm to great Roge, the course is east 4 leagues, betwixt them both, a little to the south-wardes of the fareway lyeth a shoale even above water, which you may sayle round about, but you may not come verie neare it, because it is stonie & rockie round about it. Great Rogge is an out poynt with 2 or 3 white Chalk-hills, and thereby is verie ealy to be knowne. Betwixt this poynt and Oetgensholm, somewhat more southerly lyeth another Poynt, called little Roge betwixt it & great Roge, goeth a broade Sound into the land of 6 and 7 fathom depth; but in the end it is shoale. There-abouts it is all cleane grund and good for to anchor in.

Little Roge. From great Roge to the Island Nargen, the coerse is east somewhat northerly five leagues.

When you sayl from great Roge towards Nargen, you shal finde 4 leagues to the eastwards of great Roge an other poynt with 2 white chalk spots, called Surp, betwixt it and great Roge, the land falleth away to the southwards, into a great baye. If you will sayle to Revel, then sayl alongst by that poynt of Surp, towards Nargen. leaving it on the larboard side of you, going on still east nuntill you come to the east end of Nargen. Being there by it, then goe on e. s. e. a league & an half, & then you shall come by the end of the riffe which lyeth of from the Blote Kareles, come no nearer it then in 6 fathom. When as the castle of Revell commeth without the Karels, then sayl rigt unto the head of Revell, untill you come to the east side, let your anchor fall there, & then hawl with the fore ship or stearne, to the head, & make you fast by 4 cables, for the north & n.n. west windes which blow there flat open in, making it a lee shoare, so that sometimes with such winds there commeth in a rowling sea. Riffe of the Karels. Revell.

East about 4 leagues from the southend of Nargen, lyeth the Island the Wolfe, which is about a league long.

North northwest, & n.w. & by n. 2 leagues from the west end of the Island the Wolf, & n.e. & n.e. & by e. from the n. end of Nargen lyeth a rock under water, called the Revel-stone, although there be no more water upon then 3 or 4 foot, yet is in the Summer time with a faire weather, oftentimes so smooth water, that it doth noth break upon it, & it is also very steep, so that you may not come neerer it by your lead then in 12 fathom. The markes for to knowe the place of this Revelstone are these. When the east end of Nargen is s.w. & s.w. & by west from you, & the high steeple of Revell is a capstane barts length, or a litle more to the westwards of the west end of the Island the Wolfe, then you are right thwart of this rok. The steeple of Revel is also then rigt soud from you. But when the steeple of Revell commeth to the Wolfe, & that you are bound to the eastwards, and you are surely past this Revell-stone, and a good wayes to the eastwards of it. Revell-stone. The Wolf.

From the west end of the Island the Wolfe lyeth of a riff to the nortwards into sea, about an English mile toward the Revell-stone, upon the end of this riffe lye 5 or 6 roks a litle above water. If you come away from Revel on n. & by west alongst by the Wolf, then marke the poynt of Surp, when that commet even unto the s. end of the Island Nargen, then you shall also have even the length of the foresayd riffe. If you looke out then on the starboard side, and be not sayled very farre alongst to the westwardes of the Wolf, you shall see the foresayd rockes (lyingh upon the end of the riffe) lye thwart from you, and then you may run to the northwards about by them in 5 fathom without doyngh amisse.

Shoale of Nargen. Betwixt Nargen and the Wolf lyeth also a stony shoale which is very broad, but much neerer Narghen then the Wolf, & lyeth from the south point or Nargen about n.e. & from the n. poynt e.s.e. Therefore if you bring the s. poynt of Nargen about s.w. or s.w. & by s. & the foresayd north poynt w. n. w. from you, and that the Wolf lye then free from the mayne land, you shall not misse to fall upon this shoale.

Nargen You may sayle round about Nargen, & also anchor under it for northerly & westerly winds in 10, 12, 14 & 18 fathom.

From Nargen to the Island Wranger the course is east 7 leagues. The lying there of you may see in the followingh directions.

Of the Coast of Finland, betwixt the Alands Haffe and Elsenvos.

Aland. Betwixt Uxe or Bostell on the coast of Sweden, and the Island of Aland, goeth in the Alands Haff, which men doe call the north Bodem, which lyeth up so farre to the northwards into Finland, that a ship with hood fresh way should scarce be able to sayl to the end off it in 5 dayes, upon the farthest end of this north Bodem lyeth the towne Toren, there Sweden is parted from Finland.

Ercke, Castelholm & Corpe. At the outermost rocks of Finland on the Alands Haff lye 3 Islands, Ercke, Castelholm and Corpe. Ercke is the westermost of all, and the outermost, from thence goeth in the Corpe sound, north-east alongst thwart of Castelholm and Corpe. Corpe lyeth within the other Island, and from Corpe you may edge over into the Liet of Abbo, which commet runningh of from Uttoy: you may also sayle up into this channel about behind Lipland, and so come out into the north Bodem.

Uttoy. Uttoy is a great Island, upon it standeth a great mast with a barrell for a beakon, and lyeth from the Island Corpe east and west about 9 leagues. On the west-side of Uttoy goeth up the Liet of Abbo, which lyeth in first north and north and by east about 3 or 4 leagues, and then you come on against a great Island. And then it lyeth alongst that great Island n. e. unto the Sound of Abbo. Abbo lyeth at the end of that foresayd great Island. This Liet runneth up alongst to the eastwards through betwixt the rocks about 13 leagues, within it lyeth a rock under water, which a Magnes or Load-stone, also the grounde seemeth to be there of the Vertue of the Load-stone, or when you come there abouts, the compasses doe not stand, but run and turne without any certain standingh still, untill that you be at least a league past it, and then they begin to stand right againe. From thence Abbo. Magnes.

thence it lyeth e. and e. and by south all alongst throug the rocks unto the Roug Island, to the westwards of it runneth the channell of Luys into the Sea, when you are thwart of it at Sea, you may see the land of Revel. It is there betwixt them both, to witt, betwixt the Out-rockes & Nargen, or the land there abouts 10 leagues broad.

The Out-rocks of Luys, and the channell of Uttoy lye e. and w. about 21 or 22 leagues distand, although it be there betwixt them both all broken land, and full of rocks, yet nevertheles there are no havens nor channels fit for ships to come into.

Luys. From Luys alongst without the Rocks to the channel of Elsenvos, the course is east and by north 15 or 16 leagues, but Nargen or the Wolf, and the channell of Elsevos lye n. n. e. & s. s. w. about 16 or 17 leag. asunder.

How these Lands doe lye one from the other, and from other Lands.

From Derwinda to Lyserorte n. e. 4 leagues
From Lyserorte to Domesnes e. n e. 12 or 13 leagues
From Domesnes to Round e. and by n. somewhat easterly 8 leagues
From Round to Duynemond or the mouth of the River of Rye, s. s. e. [illegible]
From Domesnes to Rye or Duynemond southeast 20 leagues
From Duynemond, Lemsael or Sales northeast 14 leagues
From Duynemond, or the mouth of the River of Rye to the Island Kin, north and by east 14 or 15 leagues
From Round to the Island Kinne, east and by north 7 leagues
From Domesnes to the south-end, or the road of Oesell northwest and by north 6 great leagues
From Domesnes to Ambroeck, north and by east 7 leagues
From Round to Ambroeck northwest 8 leagues
From the south-end of Oesell to Arentsberg, northeast 8 leagues
From Luserorte to Houbroug, w. & by s. somewhat westerly 40 leagues
From Luserorte the poynt of Alant or the Islands, north and by west somewhat westerly 52 leagues
From the south-poynt of Oesell to Hondsorte, n. n. w. 12 leagues
From Hondsort to the poynt of Dagerorte, n. n. w. 8 leagues
From Dagerorte to Syburgnes, east and by north 7 leagues
From Syburgnes to the Oxcholme & the Grasholme, s. s. e. 4 or 5 leagues
From the Grasholme to the great Tree upon Oesell, south 5 or 6 leagues
From the northeast-poynt of Oesell to Parno southeast 20 leagues
From Arensberg to the northeast-poynt of Oesell, east & by s. 8 or 9 leag.
From Ambroeck to the northeast-poynt of Oesell, northeast somewhat easterly 9 or 10 leagues
From Round to the northeast-end of Oesel, n. somewhat westerly 13 lea.
From Lemsael to Parno, north and by east 11 leagues
From Dagerorte to the Rose-head, s. w. and by south 80 leagues
From Dagerorte to Eastergore south west and by west 39 leagues
From Dagerorte to the Gotschesand, west southwest 26 leagues
From Dagerorte to Boechschaer n. w. and by w. 18 leagues
From Dagerorte to the poynt of Aland or the Islands, northwest and by north 26 or 27 leagues
From Syburgnes to Oergensholm, east and by north 7 leagues
From Oergensholm to great Roge, east 4 leagues
From great Roge to Surp east 4 leagues
From Roge to Nargen east somewhat northerly 4 leagues
From the south-end of Nargen to the Island the Wolf, east 5 leagues
From Revell to the Wolf, north somewhat easterly 5 leagues
From Oergensholm to the Out-rocks of Luys, n. & by east 15 or 16 leag.
From Syburgnes to the Channell of Abbo, or Uyttoy, northwest and by north 20 or 21 leagues
From Uttoy or Abbo to the channell of Luys, the course is east 22 leag.
From Luys to the channell of Elsenvos, east 16 or 17 leagues
From Nargen to the channell of Abbo, the course is w. n. w. 32 or 33 lea.
From Nargen to the channell of Elsenvos, n. e. and by north 17 leagues
From Nargen to the Outrocks of Luys n. w. and by north 13 leagues
From the Wolfe to Peitingscheres east northeast 20 leagues
From the channell of Abbo to Boegschaer, s. w. somewhat southerly 16 lea.
From the Island the Wolf to Wranger, e. and by south 3 leagues.

How these Lands doe shew them selves at Sea.



Coerland sheweth it selfe in this forme, betwixt Lyseroort & Domesnes, when you saile alongst by it.



Thus shew the coast of Coerland, from Domesnes past Derwinda, & the Bakovens towards Der Lyba.



When you saile about Domesnes, then Oesel sheweth it selfe thus.





The Island Round, when you sayle alongst by it, shewet it selfe thus.



The litle Island Ambrock.



Thus sheweth Coerland to the eastwards of Domesnes.



The Mouth of the Duyn.

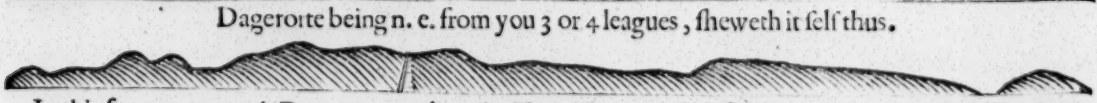
When you come against the Mouth of the Duyn, the River of Rye, the land sheweth it self on both sides of it thus.



When Dagerorte is n. n. e. 4 leagues from you, it sheweth thus.



Dagerorte being n. e. from you 3 or 4 leagues, sheweth it self thus.



In this forme appeareth Dagerorte, when the Towre is east and by south, and the northermost-poynt is east from you 4 leagues, and then you may even see it in clear weather from below.



When as the Towre upon Dagerorte is s. e. and by south, and the land to the eastwards of it is s. e. 4 leagues from you, then it sheweth it selfe thus.

Syburgnes.



When the Towre of Dagerorte is s. s. e. from you, then it sheweth it selfe (with the land to the westwards of it) thus.

Thus

Ellenvos
Borgo
Parnal
Cuma
Fromal
Reisanborgh
Peltingh
Peltingh sondt
Peltingh scharen
Putsagre
Rock schar
Wranger
Cleyn Wranger
Eckholm
Kalckgrond
Cleyne Tuyers
Groote Tuyers
Rock
Brocklom
Wissenborgh
Lillborgh
O O S T
S Y F S A N D
Duytsche mylen 15 in een graet
Spaensche mylen 17½ in een graet
Eng en Fra mylen 20 in een graet

FINSLAND.

Wyborgh

Veymax

Vchelax

Ossby

Nimes

Lepares

Rohd

Riwaldt

Cleyne Visscher

Groote Visscher

Quade Schaer

Bierko

Schans der Ry

Sommers

Narva

Ruttesarve

Summe gronden

Rettensari

Coporia

Castram

Russe haken

RVSLAND.

de Zee-custen van

LIIFLANDT,

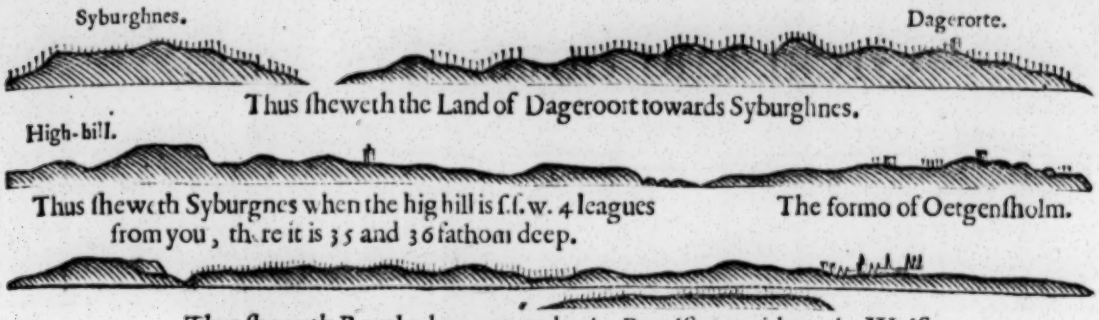
En Oost Finlandt: van Wolfs-oort tot aen Wyborgh

't Amsterdam.

By Iacob Theunisz. op't water inde Lootsman.

Der Narya

31



The fourth Demonstration,

Where in is sheweth

The Sea-Coastes betweene the Wolf and the outtermost of the East-Sea.

Wranger. THE Island Wranger lyeth from Nargen east distant 7 or 8 leagues, and 3 leagues east & by south from the Wolf.

Under Wranger is on both sides good road & good anchor ground, especially on the soud-side, where there is a Bay, then you may anchor betwixt the two points, in 10, 12 or 14 fathom, according as shal be convenient, and lye sheltred for a n. e. & east and also for n. w. and west windes. You may saile round about Wranger, but from some points (as from the south-point, & from the north-point) lye of some little riffes, whereof you must take heed, and be careful in using the lead when you saile about by them.

Little Wranger. About an English mile from Wranger lyeth little Wranger, a little long smal Island, lying about n.w. and s.e. which is rocky and foul, especially on the n. e. side. From the s. e. point runnet of also a rocky rif whereof you must take heed.

On the s. e. side is good anchoring for n. e. and east windes, anchor under it so that the s.e. point lye about east from you, there is good lying for n. e. and east windes.

From the n. w. point runneth of also a little riffe, which you may sound about in 4, 5 or 6 fathom, according as your ship goeth deepe, when as you will goe to anchor there, comming from the northwards, or about to the northwards of the Island.

About a great league north from the east-end of Wranger, and two little leagues north and by west from little Wranger lyeth a little Island, which by some is called Kuyken, but commonly is called the Koecxschaer, which is a little bare rock with a Warder upon it, you may saile round about it on both sides, it lyeth from the Wolf n.e. and by east distant 2 great leagues.

Koecxwyke.

From Wranger to Eckholme, the course is east and by south 14 leagues.

Three leagues by west the Eckholms lyeth an out-poynt to the eastwards of it is a Bay, called the Monkwyke, there it is good anchoring for s.w. and west winds in 8, 10 or 12 fathom. Betwixt this point of the Monkwyke and Wranger lye three little long Islands, lying alongst the coast of Lyfland, about a halfe league from the shoare which are very foule and rocky, and almost nothing but rocks, whereof you must take heed, otherwise the coast betwixt them both is cleane.

Monkwyke.

Eckholm. The Island Eckholm is clean round about, & lyeth about n. w. and s. e. it sheweth it self high at both ends and in the middest with a Valley. Under Eckholm is good anchoring at the n. e. side for west and s. w. winds in 20, 22 and 25 fathom, and on the s. w. side for easterly winds.

Telsburgh. Five leagues to the eastwards of Eckholm lyeth the Castle Telsburgh, thwart of it lyeth of a shoale from the shoare, but you may sound it in 8 or 9 fathom. From thence the coast lyeth alongst most east and by south unto the road of the Narve about 15 leagues, it is altogether cleane without fowle ground, so that you may also sayl alongst there by night in 8 or 9 fathom without feare.

Northwards from this coast in the fareway betwixt Eckholm and the Island of Highland lye the Chalck grounds, Hoftes, the little and great Tutters, al of them with very dangerous foule grounds and shoales. Eckholm and Highland lye e. n. e. and w. s. w. distant about 10 leagues. About 2 or 3 leagues east from Eckholm, and also two leagues from the mayn land lye the Chalck grounds, which are foul grounds, almost 3 leagues long under water, and lye to the westwards w. n. w. into the Sea, and to the eastwards almost the riffe of the Hoftes. Some say that they are fast to it, so that you should not be able to sayle throug betwixt them. Chalk-gronds.

The Hoftes lyeth s. s. w. from High-land about five or sixe leagues, which is a long small Island foule round about, with two fowle riffes that lye out, the one lyeth of somewhat to the eastwards, and the other to the westwards unto the Chalck grounds. Hoftes.

Northwards from the Hoftes lye the little Tutters and two leagues to the eastwards of the little Tutters lye the great Tutters.

The little Tutters are two Islands not high but round about rocky, riffy, and fowle, they lye s. w. and south about 3 leagues from Highland. Little Tutters

The great Tutters lye from the little Tutters e.s.e. about 2 leagues, and from Higland south also 3 leagues there lyet off from it also great stony riffe westwards towards the little Tutters; there lyeth also betwixt the little and great Tutters a row of rockes, where of you must take heed when you wil saile throug betwixt them. Greate Tutters

South and by east about two leagues from the great Tutters lyeth a shoale of five fathom. He that wil saile to the southwards of these foresayd Islands and shoales towards the Narve, may be mindfull there of, it lyeth about four leagues to the eastwards of Tesburg: two or 3 leagues from the shoare. Shoale.

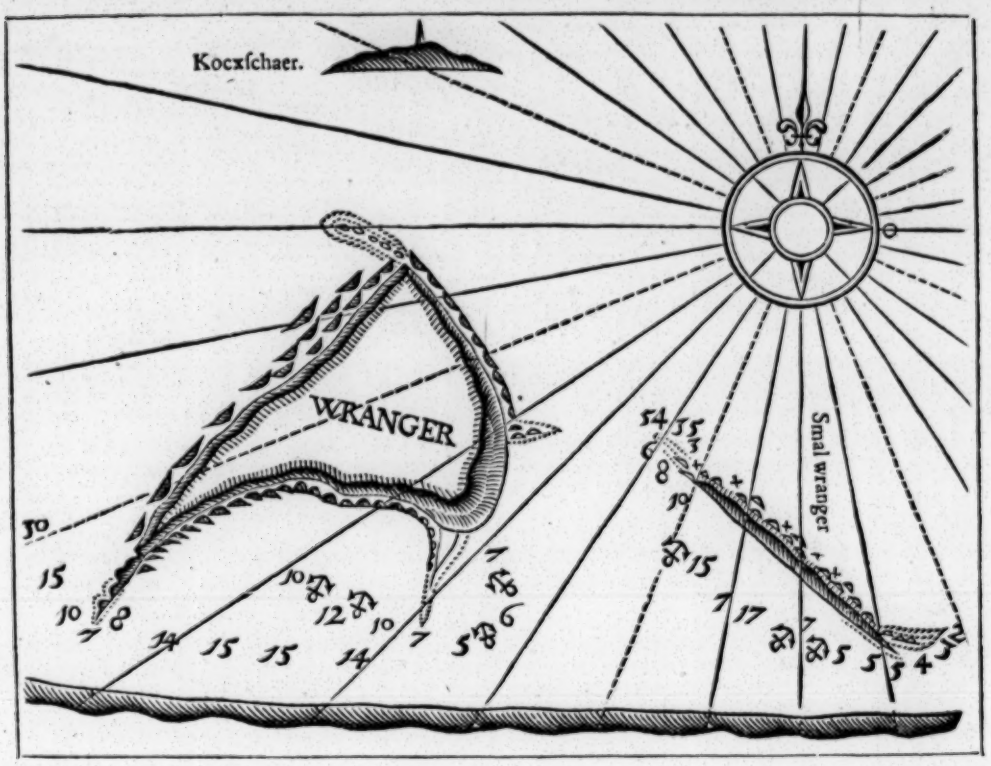
Betwixt the great Tutters and Highland lyeth a shoale upon which there is no more then 6 foot water.

Southeast a great halfe league from the south-end of Highland lyeth another shoale of a fathom and halfe and two fathom deep.

To the northwards off al these foresayd roky Islands and fowle shoales, lyeth a little Island where upon standeth a Mast for to know it by, and to descerne it from the other little fowle Islands, that you may come indifferent near to it, but not to near, for it is also somewhat rocky and fowle, but not farre of, it lyeth from the little Tutters west and by north and west northwest about three leagues, from the Island Highland southwest & by west at least foure or five leagues, but from Wranger east somewhat southerly 18 or 19 leagues.

He that wil saile of from Wranger towards the Narve alongst to the northwardes of these foresayd grounds, and doth get sight of this Litle Island with the mast, may thereby the better know to direct his course, but it is not wisdome to sayle throug these foresayd shoales, except for them that are very wel acquainted.

Great and Small Wranger.



High-land or Hoog-land.

THe Iſland Higland or Hoogland, is about 4 leag. long & a league broad, lying ſ. ſ. e. & n. n. w. When you come out of the weſt, it ariſeth in three Hommoks, ſo hig to ſee to as Coll in the Sea reach, upon the north-end & upon the eaſtſide it dot ſtand al ful of trees. A litle about the nord point on the eaſt-ſide is a little bay thwart of a Boers houſe, there it is clean ground and good lying for weſterly, ſ. weſt winds, ſomewath to the ſouthwards of it, not very far from the ſhoare, lyeth a great rok above water. At the nord-end is alſo good lying for a ſ. eaſt wind. Alongſt the ſouthweſt-ſide you may alſo anchor every where in 16, 17 or 18 fatum cloſe by the land for eaſt and northeaſt winds.

From the ſ.w. ſide of Higland unto the road of the Narve the courſe is ſ. e. and ſ. e. and by ſouth about 15 leagues, and then you run throug betwixt the Higland and the Tutters.

Likewiſe when as you ſayle on n. w. from the Roade of the Narve, then you run alonghſt betwixt the Tutters and Highland, but you muſt be very carefull, and take heed off the foreſayd ſhoales, which ly betwixt them both.

The land of the Narve men do know by three high hills lyingh a league to the weſtwards or to the ſouthwards off the road, and a league further to the weſtwards ſtand ſome little houſes upon the high land.

The Narve.

The Towne of the Narve lyet upon a River about 2 leag. within the land. For to ſaile in there, men where wont to look out for a long hil, which lyeth on the ſouthſide within the river mouth, & at the eaſt-end goeth downe ſomewhat ſteep, with ſome hig trees to the eaſtwards of it, then they brougt the Wodden Tower of the Narve to the nordwards of tne foreſaid trees, and did run in ſo with it. When as the eaſtermoſt of the three foreſaid hils (a league to the weſtwards of the Rivers mouth) come over a little Hommock, which lyeth on the water-ſide, then they where upon the barre of the Rivers mouth, there was upon the ſhoaleſt ten foot water, & then they ſailed up the river, that was wont for ſome years to be ſo, but it is poſſibly ſince that time more or leſſe altered like as it dat oftentimes happen in ſuch Rivers.

Ruſſe-haecks.

From the road of the Narve to the Ruſſehaeks, the courſe is nord & by w. 5 leag. which lye with many roks & good waies off from the ſhoare. The point thwart of it is called the point of Caſtrum after a litle town (ſo called) lying there.

Rette Sarre.

From the Ruſſe-haecks north, 5 leagues lyet a litle Iſland called Rette Sarre, from which there runneth of a riff ſouth into Sea. From this Iſland to the Summers, the courſe is north and by weſt, weſterly 4 or 5 leagues.

Eaſt ſ. e. and ſ. e. and by eaſt from Higland, and 3 leagues from the Ruſſe-haecks lyeth another ſhoale, called the Slimme grounds, it lyeth long and ſmall alongſt n. n. w. and ſ. ſ. e. with hard wind you may ſee it breck in four or five places: when it is weſt from you about halfe a league there it is 2 fathom deep, to 3, 4, 5 and 6 fathom uneven ground, ſome of the Rocks of it lye alſo above water. Slimme gronds.

From the Ruſſe-haeks to the Rode-hel, the courſe is n. e. and by north about 23 leagues, betwixt them both on the Ruſſe ſide runne alſo divers Rivers into the land, but there is no Trade. The land there lyeth in a great bigt, it lyeth firſt from the Ruſſe-haecks unto the River of Nioa or Oreſchacke e. n. e. about 22 leagues, that parteth Ruſland from Finland by a great Meer or Water, called the Lading.

The ſtrong Caſtle of Noctenburg lyeth there alſo upon a River, which lyeth of the Lyſlands or Eaſt-Sea into the foreſayd Lading. Further the land lyeth northweſt about 15 or 16 leagues unto the Rode-hell. The Lading.

For to ſayle from Revell to Wyburgh.

From a little to the northwards of the Kocxſchaer to Higland, the courſe is eaſt & by north a litle more eaſterly 23 leagues, with that courſe you run alongſt a little to the northwards of it. You may ſayl about Higland on bot ſides, but alongſt to the nordwards of it is the rigt fareway for theſe that are bound to Wybroug. A halfe league nord & by weſt from Higland lyeth a ſuncken Rock under water. For to avoyd it you muſt ſayl cloſe alongſt by Highland. Further, the lying of Higland hath been deſcribed here before.

Summers.

From Highland to the Summers, the courſe is eaſt 7 leagues. Summers is a rock or litle Iſland almoſt like the Eartholms, it ſheweth it ſelfe in 3 hommoks. A little to the eaſtwards of it lye ſome roks a bove water: you may ſayle about on both ſides of Summers, & alſo throug betwixt Summers & the foreſayd roks that lye to the eaſtwards of it: But about to the northwards of it is the right fareway, you connot alſo runne alongſt farre to the northwards of it, for a halfe league to the northwards of it, is vere fowle and full of little rocks, ſome above and ſome under water.

Goeſchaer of greate Fiſhers.

From the Summers to the Goeſchaer, the courſe is northeaſt & by north more eaſterly 7 leagues. The Goeſchaer which by ſome is called the great Fiſher, is a long & broken Iſland of ſeven Rocks, therefore it is alſo called the Seven-rocks, it lyeth not far from the land, ſo that you cannot get ſight of it, before that you come neare it ſheweth it ſelfs when you ſhall firſt ſee it, in foure Hommocks, as if were foure little low Iſlands, you muſt leave it lying a haite league on the larboard ſide, for to avoid a ſuncken Rock which lyeth off from it ſouth ſouheaſt a great ſhot of a caſt pece. When the water is not very ſmoot, but a little grown, you may perceive it by the breaking of the water: you may alſo wel ſayle to the northwards of this ſuncken rock, to witt, throug betwixt the ſuncken rock & the Goeſchaer, then you muſt run indifferent cloſe alongſt by Goeſchaer; when is n. w. and by north from you, then you are paſt the foreſaid ſuncken Rock, whether that you run alongſt to the nordwards or to the ſouthwards of it. Northweſt and by north behind the greate Fiſher you may anchor in a good haven, betweene the Cliffes, where upon the ſouth Corner of a Cliff there ſtand a warder, where in if you lye there you are free from al ycedrifs.

From the Goeſchaer or great Fiſher to the little Fiſher, the courſe is northeaſt and by eaſt 3 leagues. The little Fiſher is a bare round Rock which lyeth not farre from the land: when you come neere it, you may know it well from the other Rocks, becauſe there lye none farre from the land

land alone, you may sayle about it on both sides, but alongst to the southwards of it the rigt fareway. About a shot of a cast peece s. e. or s. e. and by east from thit little Fisher lyeth a black rock, with the top even above water, almost like a buve upon the Flye-streame, to see to a farre of as if it where a Seales head. This rock you must leave on the starboard side, and run through betwixt & the Fisher but there is a piece of it driven of with a strong yce-drift, so that as many sai, there is not much feare to be made of it.

He that must turne to winwards there abouts, let him not come very neer this rock, for men doe hold that there ly more rockes by it under water.

Both the Fishers are otherwise clean round about; so that you may also finde road under them.

Corsnes. From the little Fisher to the poynt Corsnes, which the Lubickers doe call Kruysoort, the course is e. n e. somewhat easterly a league. Corsnes is a point going of low of the maine land, not very clean, which you must leave on the larboard-side. To the westwards of Corsnes lye two litle Ilands close to the land. Thwart of the point lyeth a rock almost like a Boat, you may runne about it 4 fathom and a halfe, but not neare. On the east-side of that point you may anchor for westerly winds in 5 or 6 fathom.

About two leagues thwart of from Corsnes, lye very many roks, some one fathom, some a halfe fathom, some more, & some lesse under water, you may not goe out of the fareway without great feare and danger. It is impossible to describe al the uneven grounds, the great multitude of rocks and rocky shoales which are lying there abouts.

Roadehell. From Corsnes to the Island Rodehel, the course is n. e. and by east about 3 leagues. Rodehel is a great roug Island with a saddle in the middest, which you must leave lying on the starboard-side. The north-point is a red point, there stand up long Staves over end, like unto a Warder in Norway, you must goe close alongst by them; or you may runne in amidst the Channell, according as shal be best convenient, but you may not goe close by the nord-point over against it (which the Dutch shippers doe cal Jan Lambertsons point) because of a stony and steepe little Rift which lyeth of from it, but you may run about by it upon your lead in 7 or 8 fathom, but may come no neerer; the rigt fareway betwixt them both is 14 or 15 fathom deep.

Betwixt the point of Corsnes & the Rodchel, it is not without danger to turn to windewards, especially you must be very careful not to run to far over to the southwards, but to the northwards, towards the maine land it is indifferent cleane: It is there in the fareway 16 fathom deepe, soft Clay-ground.

For not to misse this foresaid Channel; or the north-point of the Rodchel, then take the mark out a stearne of the little Fisher, bring that even without the point of Corsnes, & keep it so standing sailing towards the Rodchel, & so you shal not saile to sal rigt before the channel. This is a sure mark where upon you may trust. If you sal somewhat to the southwards of the foresaid channel, you can see opening, but seemeth to be al whole to the maine land, so that men (that are not wel acquainted) migt not know where to seek the channell, but sailing to the northwards the channell doth open it self.

When as you shal be then within the foresaid point of Rodehel, you may anchor there where you please, and fetch a Pilot from the land, which may bring you up to the Towne Wybroug. It is there within 15 fathom deep, and good soft Clay-ground.

If you wil (being come within the Rodehel) saile up to Wybroug, then goe on east & by south a shot of a cast peece unto a black point, leave that about two cables lengrs on the larboard-side, for there it is not cleane. Being a little past this black point, then go on n. e. or e. n. e. a halfe league, and then you shal come against a great white sand-bay, but before you come by this sand-bay, you shal meet a rock with a gray stone like a buye upon the Flye-stream, leave that foresaid rock on the starboard-side, and the gray stone on the larboard-side, and run amidst the channell throug betwixt them both, there it is 3 fathom deep. It is in no wise to bee done to sayle up there for him that hath not been there before, but it is best to anchor a little within Rodchel and to let him be brougt up by a Pilot.

The Coast of Finland betwixt Elsenvos and Wybrough.

The channell of Elsenvos lyeth from Nargen or the Wolf n. e. and by n. & s. w. & by south about 17 leagues, & from Wranger south & north.

Upon the west-side of the channell lyeth a hig round Rock, where upon
Kubben. standeth a mast, or Warder, called Kubben, over against upon the other side
Saurum of the channell lyeth a long rocke or Island called Saurum, & halfe league to
Mely. the eastwards of Kubben lyeth another great round rok called Mely. These three Rockes are the best markes to be known of this foresaid channell.

Betwixt Kubben & Saurum lyeth that channell in from thence n. e. until
Elsenvos. that you be within the Rockes, and then n. n. e. and north and by east, until you come before the River of Elsenvos, there you may anchor betwixt the Rockes in good anchor ground.

There runnet also a lyeth throug within the Rockes, where you may saile alongst, and come out againe into the Sea by Putsfagre, this runneth about very crooked with many Bigts, but it is Pilots water.

If you wil saile to Borgo, then runne a league to the eastwards of the foresaid rock Mely, there you shal finde two hig bare rockes, called the Tolken, runne in betwixt them both, but neerest to the eastermost, which is cleane & cleare close to it, & lyeth somewhat further to Seawards then the westermost. West n w. from this eastermost hig rocke, lyeth a little rocke above water, leave that on the larboard-side. When as then you shal be by this eastermost rock, which you leave lying on the starboard-side of you, then goe on n. n. e. to Schoeland, that is a roug Island off from which lye many bare points, al which you must leave (with the Island also) on the starboard-side, then runne alongst close by these bare points. When you are past them, goe then n e. & by north, somewhat easterly, & so you shal se two other bare rockes, the eastermost of the greatenesse of a ship very steepe & hig, but the westermost is smal, run in there betwixt them: the Sound is called Cramer-poort. When you are within them, goe then in north and by east, and then you shal presently meet with a great Island called Cramer, leave that on the starboard-side, & so you runne rigt on with an other greate Island, called the Hester, leave that on the larboard-side, & anchor betwixt the two Island Cramer & the Hester, there is good anchor ground. Borgo. Cramer Poort. Cramer

From the mouth of the Sound of Elsenvos to Peltingsound, the course is e. s. e. 13 or 14 leagues. Peltingsound lyeth in n. e. there you lye within a great many Rockes, or little Islands, sheltred for all winds. You may saile from thence throug within the Rocks all over where you desire to be, if you have a good skilfull Pilot. Pelting sound.

From Peltingschares to Putsfagre it is 18 leagues. Putsfagre is a great Rock, or Island, lying from Higland n. n. w. distant 5 or 6 leagues. About a league south from this Island Putsfagre lyeth a suncken Rock, which you must avoid. He that will saile throug within the Roks, let him take a Pilot from Putsfagre, that may being him throug the Rockes where hee desireth to be: you may run in there every where, and within the Rockes it is most all over good anchor-ground. Puts-fagre.

From Putsfagre to the Epelschares, the course is east 6 leagues: these are a great many Out-rocks, a little to the eastwards of them lyeth a great Rock called Quadeschare which you may sayle round about. Epel-schares.

From Epelscharen to the Goeschare, the course is east somewhat northerly 9 or 10 leagues. That, & the lying of the land, and dangers from thence eastward, hath beene described here before. Goe-schare.

How these Lands doe lye one from the other, and from other Lands.

From the Wolf to the Kocxschaer east and by north	3 leagues
From Wolf to the Peltingschares e. n. e.	20 leagues
From Wolf to Wranger east and by south	3 leagues
From the Kocxschaer to the east-end of Wranger, south & by east	1 league
From Kocxschaer to little Wranger s. s. e.	2 leagues
From Wranger to Eckholm, east and by south	14 leagues
From Eckholm to the Castle of Telsburg e. s. e.	5 leagues
From Telsburg to the Roade of the Narve, e. s. e.	15 leagues
From the road of the Narve to the Russe-haecks n. and by w.	5 leagues
From the Russe-haecks to the river Nica or Oreschack, e. n. e.	22 leagues
From Oreschack to the Rodehel, n. w.	15 or 16 leagues
From Rodehel to Schares Terny s. e.	10 leagues
From the Russehaecks to the Rodehel n.e. & by north	23 leagues
From Russehaecks to the Island Rette Sarre north	5 leagues
From Rette Sarre to Sommers, n. & by w. somewhat westerly	4 or 5 lea.
From Eckholm to the Island Highland, e. n. e.	10 leagues
From the west-side of Highland to the road of the Narve s. e. & s. & s. e.	15 leagues
From Highland to the little Tutters s. w. and by south	3 leagues
From Highland to the great Tutters south	3 leagues
From the Island with the Mast to the little Tutters, east and by south and east southeast	3 leagues
From the Kocxschaer to the Island with the Mast, e. & by s.	18 or 19 lea.
From the Island with the Mast to the Highland n e. & by east	4 or 5 leagues
From the Kocxschaer to the Highland east	23 leagues
From Highland to the Sommers east	7 leagues
From the Sommers to the Goeschaer or Great Fisher, n. e. and by north somewhat easterly	7 leagues
From the great Fisher to the little Fisher n. e. and by east	3 leagues
From the little Fisher to the Corsnes n. e. somewhat easterly	1 league
From Corsnes to the Rodehel n. e. and by east	3 leagues
From the sound of Elsenvos to Peltingsound e. s. e.	13 or 14 leagues
From Peltingsound to Putsfagre east	8 leagues
From Putsfagre to the Epelschaers, east	6 leagues
From the Epelschaers to the Goeschaer of great Fisher, east somewhat northerly	9 or 10 leagues
From Eckholm to Elsenvos n. w. & by n. somewhat westerly	23 leagues
From Highland to Peltingschares n. w. and by west	9 leagues
From Highland to Putsfagre n. n. w.	5 or 6 leagues,

How these Lands doe shew them selves at Sea.



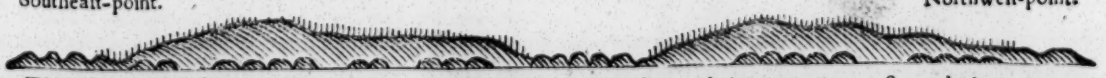
Thus Island Wranger sheweth thus, when it is s. e. & by east 3 leagues from you.

Northwest-point. Midland. Southeast-point.



Thus shew Eckholm, when you come from the westwards, and that it lyet to the eastwards from you.

Southeast-point. Northwest-point.



Thus sheweth Eckholm, when you come from the westwards, and that is to the westwards from you.



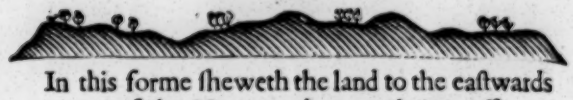
In this forme ſheweth the Iſland the Huttes, when you are to the ſouthwards of it, & ſayle alongſt by the coaſt of Lyſland.



The little Tutters ſheweth themſelves thus when they lye to the northwards from you.



Thus ſheweth the great Tutters, when you ſayle alongſt by the coaſt of Lyſland, & that they lye to the northwards from you.



In this forme ſheweth the land to the eaſtwards of the Narve, when you come off from the Highland.



Thus ſheweth the land to the eaſtwards of the Rivers mouth of the Narve, when you come there abouts, commingh off from the Highland.



Thus ſheweth the Iſland Highland, when you ſee it comming from the weſtwards.

The fifth Demonſtration,

Where in are ſeth forth

The Coaſtes of Sweeden, betweene Oeland and Stockholm.

Borckholm. Coping wyke.

ABout two leagues more northerly over againſt it, on Oeland lyeth Borckholm, a little to the northwards of it lyeth Coping-wycke, where men do lade many Toomb-ſtones and other ſtones, a northerly winde it is bad lyingh there.

Northweſt or ſomewhat weſterly from Brock-holm, about 3 leagues on the Sweeds-ſide, lyeth a Haven in the Rockes, where men do lade Beames, to the northwards of it northweſt and north from Brockholm lyeth Munſteraas, that is a good Haven alſo for very great ſhips.

Munſteraas.

Sweeds Joufer.

From Calmer to the Sweeds-Joufer, the courſe is n. n. e. 9 or 10 leagues, this is a round Rock, & very high, you may ſee it alongſt over Oeland, being a good wayes to the eaſtwards of Oeland; it is not very great, but cleane round about, ſo that you may anchor neare under it on very ſide in 18 & 19 fathom, but by reaſon that is not broad, there commeth in (with hard windes) a rowling Sea.

From the Sweeds Joufer to the channell of Weſterwyke or Silbuy, the courſe is n. n. w. 7 leagues, but from Northeroorden the north-end of Oeland n. w. 8 leagues.

Ide-ſound.

The channell of Weſterwyke and Silbuy is called Ide-ſound, after a great Rock lyingh on the north-ſide of this channell, called Ydehoe, off from it lye many rocks, ſome above and ſome under water 2 great leagues to Seawards,

Ide-bancks.

which are called Ide-bancks.

He that wil ſaile from the north-end of Oeland towards the barſound, and by bare winds doth come little to the weſtwards, without the rigt fareway, muſt be very careful, and take good heed that he get not in amongſt them.

For to know the channel of Weſterwyke, you ſhal ſee a hig bare Rock, bring that n. w. from you, and ſayle ſo rigt in with it, & then you ſhal fal with the land rigt before it, & then alſo you ſhal eſpye another bare Rocke, where upon ſtandeth a Fiſhers beakon, & alſo another to the ſoudwards of it, with a maſt, ſaile in betwixt the two Rocks, the channel lyeth in n. w. & n. w. and by north when you are come within them you may ſaile alongſt throug the Rocks where you deſire to be, to Silbuy, Strixholm, Flourbuy, Vrouwenbergh, Weſterwyke, up to the northwards to Schelſuyr & other places more, there it is al cleane ground and 12, 15, 18 and 20 fathom deep.

Silbuy.

If you be bound to Silbuy, then ſaile up to the nordwards or eaſtwards until you come before the Towne, and anchor there in the middeſt between the Roks in 7, 8 & 9 fatum.

Flourbuy.

If you be bound to Flourbuy, or Vrouwenbergh, then ſaile in weſt, & weſt & by north throug the Rocks till you come againſt the maine land, there you may anchor before Flourbuy, or ſaile up n. w. betwixt the Iſland of Vrouwenberg and the maine land, & anchor there in 12 fathom, alſo you may run throug that way until you come to Weſterwyke. Weſterwyke lyeth from Silbuy throug within the Rock weſt, & weſt and by north, there it is in the fareway 15 and 16 fathom deep. Weſterwyke.

From Silbuy to Schelſuyr it is north and by weſt 7 leagues, al alongſt throug within the Rocks. Schelſuyr is a good haven, there lyeth a rock in the Haven mouth, about which you may run in on both ſide, and anchor before the Towne. Schelſuyr.

To the eaſtwards of Schelſuyr lyeth the Hondtsbay and the Green Iſland, there it is alſo good anchoring. You may run from Silbuy alongſt by it until you come in the ſound of Southercoppen and Northercoppen. Hondtsbay. Green Iſland.

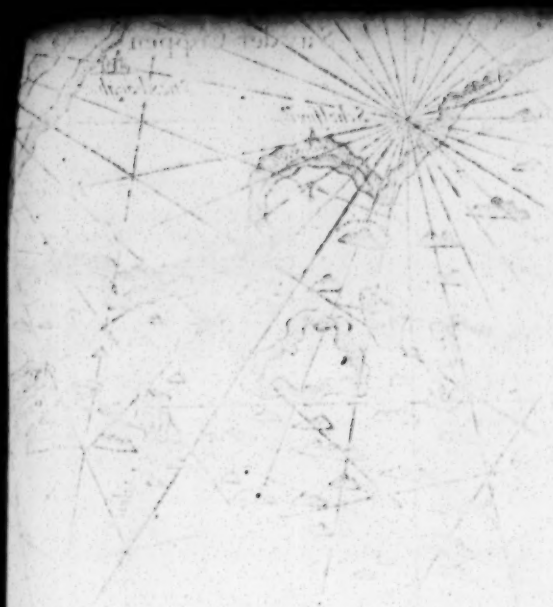
From the channel of Weſterwyke to the Barſound, the coaſt lyeth alongſt by the Roks north & by eaſt 9 leagues. But from the north-end of Oeland to the Barſound the courſe is north & by weſt 15 leagues, go not more weſterly, that you get not in to the ſuncken Rocks and foule ground of the Ide bancks.

The north-end of Oeland runneth ſomewhat far of flat. If you run out cloſe by Oeland, & ſaile on north & by weſt, then you runne alongſt farre enoug without the Ide banks, & ſo ſhal fal with the land about a halfe league to the ſoudwards of Barſound againſt a deal of low out Rocks. It ſeemeth a far off (by reaſon of the multitude of Rocks & little Iſlands to be al firme land, but comming near it, it is al broken. You ſhal ſee there alſo an Iſland by which there ſeemeth to be a channel, but you muſt be further to the northwards, run alongſt by the coaſt in 7 fathom, ſo long until that you ſee out a head an hig out-rock, theſe ſhal be the Heerſcharen, which are very foule, & lye off from the nord-point of the channel, a good wayes e. ſ. e. into Sea, all which you muſt leave on the ſtarboard-ſide and run alongſt by them unto the channell. Barſound. Heerſcharen.

When as you come out of the Sea, you muſt take very greate heed that you fal not with the land to the northwards of the channel, that you do not run into the foreſaid Heerſchare. When you come before the channel you ſhal ſee two Sound or going in, the ſouthermoſt ſeemeth to be the broadeſt and faireſt, but the northermoſt is farre the beſt, & lyeth in n. n. w.

On the north-ſide of the channel lyeth a great rock with a beakon upon it, and ſomewhat more to the northwards ſheweth a round-hil, by all which marckes this channell is very eaſy to be know, when you are right before the norther channell, and do ſee upon into it, then ſayle in northweſt; being come in about a ſhot of caſt peece, you ſhal ſee on the larboard-ſide two little low Iſlands, anchor within them in 17 or 18 fathom, there you muſt

hire



Suyder Coppen
Stockholm
Westerwye
I. Vromsers berg
Elsinerbuy
Schelfwye
Kalsholm
Lands hoy
Selbuy
Widmerwyck
S W E.
Stockholm
Ile Vancken
Munsersz
Schenckens
Swedtsche Monster
de Backer
Noorder oorden
Borcholm
Lerwyck
Ø E L A N D
Groote Karel
Cleyne Karel
Reefsholm
Baken een mast
Hoogh marber
Westerwyck
Bosvyck
Wisbuy
Houburch
G O T L A N D
Heylicholm
Narwyck
Sandwyck
Galg

Caarte van

SWEDEN

Van Oelandt tot aen Stocholm;
't Amsterdam.
By Iacob Theunisz. op 't water in de
Lootsman.

Nyeoppen
Hasselholm
Vogt in Telen
Trosa
Stocholm
Willem van de Werks kerck
Roselholm
Nyckiöm
Sta Agnes
Winstroom
De Marsteck
Heirhamer
Vamboort
Roselhoff
Carlscasen
Dantzicker gat
Slethaven
Faro
Salsoorlyn
Copersteen
Groysche sant
Duytsche mylen 15 in een graet
Spaensche mylen 17½ in een graet
Engelsche mylen 20 in een graet
32

Op Lauro wonen vier boe-
ren, ghy crycht hier wel
een Lootsman.

IVRMO

Hier liggen visschers van Paesschen
tot Amster. Landsche Kermis

Dit riff schiet wel twee mylen in zee.
en ontrent desen hoeck ontvalt het land-
oostwaert

VTTOY

Caarte van 't gat
van
ABBO ofte VTTOY.
't Amsterdam
By Iacob Theunisz opt wa-
ter inde Lootsman.

Dit syn de Visschoopen en
de syn seer Vruchtbyck

Duytsche mylen 15 in een graet
Spaensche mylen 17½ in een graet
Engelsche Fra. mylen 20 in een graet

Caarte
van
STOCHOLMSE
Liet.

Stocholm

Raedtholm

Mastholm

Visterrack

Scaye

Die beeck waermen na de Noord kercken

Baye van Dieta haven

Bere haven

Dragsharen

Roosharen

Roosharen

De Karlseck

Clapmuts Eyl. Steenduer

Soutseck

Groote daker

Daller

Raedtholm

Reedholm

Elfsnas

Rookeskar

Mastholm

Schaeroper

Gombaerdsgat

Gombaerdsgat

Lantsort

Vogelsoren

Longe Carnasen

Carnasen

Norhamer

Duytsche mylen 15 in een graet

Sweensche mylen 17½ in een graet

Eng. en Fra. mylen 20 in een graet

33



hire Pilot to bring you up, either to Soutercoppen, or Nortercoppen, where you desire to be, it is Pilots water. It is from thence to Soutercoppen, about 10 leagues, but to Nortercoppen 18 leagues. In the comming in of the Sound is a good ankor ground in 10 fathom. Within in the Sound it is broad & wide, & al over good anchoring in 18 & 20 fatum.

Talder sound. About an English mile within the Sound, you leave (in sailing up) the Talder sound on the larboard-side, there is no more then 6 or 7 foot water, from thence you edge up north & also n. e. a halfe league, then again west & by south about two leagues, afterwards w. n. w. a league unto Karholm, which is a Gentelmans house with a Mil.

Stickbrough. From Karholm to Stickbroug is further west about two leagues, that is a castle upon a little Island, you must go about to the southwards of it throug a bridge.

From Stickbroug sayle up alongst the Sound, and leave most of all the Rocks (which you see) on the larboard-side, except one or two a little above Stikbroug, leave them on the starboard-side. About 2 leagues past Stickbrough standeth a Gentelmans-house called Mem, there is the place where men do lade, a half league from Southercopping.

For to sayle from without the Northercopping, you run in by the Swartbodem up westwards unto Schenes & Braburgh, & alongst unto the Brawyck the sound of Northcopping, or else you must come in at the Brasound throug within the Rocks into the Brawyke unto Northercopping, but it is not to be done without a Pilot for them that are not there very wel acquainted, for it is Pilots water.

Brawyke.

Hevringh. From the north-end of Oeland to the channel Nycopping by the Heveringh, the course is due north about 18 or 19 leagues, but if you run close alongst by the end off Oeland, you shall fall with the land a little to the westwards of the Hevering. The Hevering is a great reddish bare Rock, whereupon stand 3 or 4 Fishers beacons, here to fore there was wont to stand upon it a barrel upon a mast, which men migt see far of at Sea, but it is taken off in the last wart between the Kings of Sweden & Denmark, now there standeth nothing upon it but some Warders.

Two great leagues to the eastwards of the Hevering, to witt, s. w. from it, lye the foresaid roks called the Swartboden, which are great roks, & are sometimes mistaken for the

Swartboden. Hevering you must saile in also by these Swartboden, & run throug within Oxelen & the other rocks; & come by the point of Hommelwyke in to the rigt Sound of Nycoppen.

When you come before the channell of the Heveringh you can at first hardly see a channell, or any opening, but bring the great Rock the Hevering n. w. from you and saile so rigt in, and run in close alongst to the northwards of it. In the sailing in you shall see two channells, the northermost is within ful of dangers, so that you cannot go throug there. The rigt channell by the Hevering is so narrow, that you can hardly turne to and again there.

From the Hevering you must saile in first n. w. a league & half, or two leagues, unto a great Rock, leave it on the starboard-side, & saile about by it, & goe in alongst n. w. & by north. A little within the foresaid great Rock, thwart of

Hommelwyke. the point of the Hommelwyke, you shal finde also a great rock on the starboard-side, you may run about to the westwards of it untill you come within the other rocks & little Islands, & anchor there in 3 fathom soft ground: but if you wil anchor there, then you must shun somewhat the west-end of the great Holm, because of a suncken rock that lyeth even without the point of the Rock. From that foresaid road unto Hasselholm the course is yet in alongst n. w. and north, but with ships of great draugt you must anchor before the channell of Hasselholm. From the Hevering to the Hasselholm it is in al about 3 or 4 leagues.

Hasselholm. From Hasselholm alongst upwards throug the stonereach, it is not deeper then 9 foote, you must also (if you wil saile up there) first set the Rockes, or sunken Rockes with beakons with your Boat, or else you should sometimes saile upon some of the Rockes in 7 foot depth.

Stonereach. The narrowest of the Stone-reach is thwart of a Island which you must leave on the starboard-side, of from which lyeth a suncken rocke in the narrow, you must goe close alongst by the sunken rok, for to the westwards of it is very shoale water. Being past this stony ground, you shal get oasie ground, where it is not deeper then 6 foot; being come over that by the Town Nycopping, it is again 8 foot deep, but stony ground. The ships lye without the Towne thwart of the beakons over against the Castle, which lyeth on the west-side of the River.

Nycopping

From Hasselholm to the Town Nycopping it is about a league first up north & by west & afterwards west. For one that is unacquainted, it is not easy to saile up, it is also Pilots water, so soone as you come within the channel, you can get a Pilot to bring you where you desire to be.

From Nycopping you may saile alongst throug the roks to northwards of Hasselholm unto Trosa and Telgen.

Landsoort (which is the west-point of the Liet of Stokkolm) lyeth from the Hevering east and by north distant 6 or 7 leagues.

Landsoort.

About halfe wayes betwixt both lyeth a great hig Rock very easy to beknowne, a good wayes without the land alone, called Hartsoe, and a little league to the westwards of Landsoort lye also so some fowle Out-roks, called the Heirhamer. When as you sail from the Hevering on e. n. e. then you run alongst a little without the Hartsoe, leaving it on the larboard-side. With that course, you cannot also saile to neere the Heyr-hamer, and then you leave it lying also on the larboard-side towards the land.

Hartsoe.

Heyrhamer.

The land to the westwardes of Landsoort lyeth w. or w. & by n. with divers great Rockes & havens where you may saile into. About a league to the westwards of it lyeth a haven within a low rock in betwixt two other low roks, there you must make you fast with cables on both shoares, & with an anchor in the Sound. Before the havens mouth lyeth a hig round Rock, which shutteth the havens mouth.

A little to the westwards of Hartsoe goeth in a Haven or Deep, where you may run throug with Barkes within Elspan unto Stockholm.

A little to the westwards of that Deep lyeth the Sound of Telgen lying in n. w. almost unto the great Lak de Mell, upon the end of that Sound lyeth Telgen, but at the mouth of the Sound lyeth a little Towne Trosa.

About an English mile s. w. from the point of Landsoort, lye two Rockes even with the water, and within these Rockes close by Landsoort lyeth also a suncken rock. He that commeth from the southwards, being bound to Stokholm, & falleth with the land to the westwards of the point of Landsoort, must take heed of them; you may saile within these two Rockes (lying even with the water) to witt, betwixt them and the foresayd suncken Rock, and also (as Pilots say) you may saile throug within the suncken Rock, that is, betwixt the suncken Rock and the maine land.

Landsoort & the nord-point of Oeland lye s. s. w. & n. n. e. a little more northerly, & a little more southerly distant 23 or 24 leagues. If you saile on n. n. e. from the north-end of Oeland, you shal sal with the land rigt with Landsoort, or a little to the westwards of it. It is better to sal with the land somewhat to the westwards of it, then to the eastwards of it, to the westwards the land is better to beknown then the roks to the eastwards of it. Therefore when as you wil sayle from north-end of Oeland to Stockholm, especially in dark weather, goe on somewhat more northerly then n. n. e. or north and by east then you shal runne in sigt of the foresaid Rock Hartsoe, which is easy to be knowne.

The Liet of Stockholm goeth in n. e. by the point of Landsoort. About a league east from the point ly some black Rocks, some above and some under water, called the Karwasen. Betwixt then and the poynt, about once so neare the Karwasen, as the poynt, lyeth an other black Rock, not great, called the young Karwasen, betwixt that Rock and the point of Landsoort, men doe sayle into the Channel of Stockholm. Close to the poynt lyeth also a little Island which you must leave on the larboard-side, and run alongst to the eastwards of it, a league n. e. from the point lyeth the Wighstone, lying s. e. or e. s. e. thwart of from the shoare. This is somewhat a long Rock with three Hommocks, the westermost are the greatest, and shew like a saddle, the eastermost hommock is the smallest, upon it standeth a little walled cape, you must sayle alongst to the eastwards of it, and leave the rock on the larboard-side. You may well sayle also about to the westwards of

Wigstone.

this Wighſtone, it is cleane round about, but on the weſt-ſide it is narroweſt betwixt it and the land lyeth alſo a Rock, with a little rock of from it, which you muſt avoyd.

Middle ſtone. A league n.e. from the Wigſtone lyeth the middleſtone, which is a great high Rock with a great cliff or ſaddle with another great rock a little to the weſtwards of it: you cannot ſaile throug betwixt them, they are faſt one to the other with Rocks. In ſayling h up men leave this Middleſtone on the ſtarboard ſide, and run about to the weſtwards of it.

From by eaſt the Wigſtone to the Middleſtone, to witt, alongſt to the weſtwards of it, the courſe is n. n. e. About a great Engliſh mile eaſt from the Wigſtone, & north from the Karwaſen lyeth another Rock, called the Gomberghſtone, & to the eaſtwards of it another, called Schaer-open. When you ſayle from the Wigſtone to the Middle-ſtone, you leave them both on the ſtarboard ſide.

Com-bergh-ſtone.

Thwart of the Middle-ſtone, on the Weſtland lyeth the haven of Ramskloof, there you may anchor within the Rocks. The Middleſtone lyeth about a half league ſouth-weſt from the eaſt-poynt of the Lieth, to witt, from the eaſt-poynt of the mayn land, or the Sweedes Schares, betwixt them both goeth in a channell, called the Danske-channell. For to ſayle in there you muſt avoyd the foreſayd eaſt-poynt a good wayes of (whereupon ſtandeth a mill) & run in by the Middleſtone, for from that poynt runneth of a great ledge of rocks a good wayes to Seawards, towards the Middleſtone. From by weſt the Middleſtone to Elſnap, the courſe is northeaſt 3 leagues.

Rams-kloof.

Danske channel

When you are a little paſt the middleſtone, you come in betwixt the two lands, and a little within the eaſt-poynt you ſhall meet with a rock in the fareway, called the Red-Cow. You may ſayle about it on both ſides, but men leave it commonly on the ſtarboard ſide, within that rock, that is on the nort-ſide you may anchor.

Red-Cow.

Elſnap. Elſnap is a haven behinde two little Iſlands, where the Kings-ſhips off wart do commonly lye to tarry for a winde, when they are bound to Sea, there it is very eaſy lying, when with contrary windes you can neyther get up nor down, you can come in & out there both from the northwards & from the ſouthwards very conveniently. Comming from the ſoudwards, you can ſee over the ſouthermoſt little Iſland, the maſt of the ſhips that lye behind it. For to ſayle in there behind it, run in about by the ſouth-poynt of the Iſland Elſnap behindit, & then you leave a little black Rock on the ſouth-ſide of the havensmouth, lying on the larboard ſide. Betwixt the two litle Iſlands of Elſnap runnes alſo a channell throug where you may go throug with Huyes and ſmall ſhips. From thwart of Elſnap, the courſe is inwards n.n.e. about 2 leagues, to the Redholm, that is a great Red round Rock grown full of trees, to the weſtwards off it lyeth another ſmaller bare rock, the fareway is there in throug betwixt them, & about a muſket ſhot broad in this narrow it is all over good anchor ground. From the northend of the Redholm lyeth of a great row off Rocks unto the eaſt-ſhoare of the Liet, where you muſt ſayle through. When as you ſayle throug betwixt the Redholm & the foreſayd bare Rock to the eaſtwards of it, go then on yet about an Engliſh mile further n. n. e. untill you come thwart of the fourth channell, counting from the Red-holm which lyeth throug the foreſayd row of Rockes to the northwards of the Red-holm, that is called S. Johns channell, it lyeth through about north-northweſt or ſomewhat more northerly, it is a ſhort Inlet, run through there. Being throug S. Johns channell, goe again north-northeaſt about an Engliſh mile to the Red-holm, which is a longh Rock, upon it ſtand three barrels upon maſts, this you muſt leave on the larboard ſide, and run alongſt to the eaſtwards of it. From the north-poynt of that Red-holm runneth of a little Ruffe or ſhoale, which you muſt avoyd. From the Red-holm unto the great Daler, the courſe is northweſt and by north, that is a haven on the weſt-ſide of the Lieth, there lyeth a Churchyard within on the land, where the ſlain Poles people in the laſt Poliſh wars lye buryed. Thwart of that Churchyard is a Sandbay, there is good anchor ground, like as is all over in that foreſayd haven. At the north-poynt of the haven the great Daler lyeth a ſuncken Rok cloſe by the land, called the Saltſack, upon which is no more then 9 foot water. From the great Daler, the courſe is alongſt northeaſt

Red-holm.

S. Johns channel

Red-holm.

Great Daler.

Saltſak.

a half league unto the little Daler, which is a high ſteep Rok, the higheſt that you find amongſt all the Rocks in the Liet, run alonghſt to the weſtwards of it, & leave it on the ſtarboard ſide. Over againſt it on the weſtſide lyeth another Rock, which is called alſo the Daler, to the weſtwards of it, to witt, betwixt that Rock & the mayn land is alſo an opening, where you may ſayl throug. A litle within that foreſayd Rock on the weſt-land goeth in the Hartſtick which is a Sound that lyeth in firſt weſt, & weſt by north a good wayes in & then n. w. & commeth into the Liet to the northwards of Waxholm, by Kings-haven. The Kings Majeſty hath cauſed to ſinck ſome ſhips in the mouth of the Sound, ſo that men cannot goe through there with great ſhips, but onely with little barcks. From the little Daler, the courſe is n. n. w. about 2 half league to Steendeur, a great Iſland, which you muſt leave on the ſtarboard ſide, and run cloſe alonghſt by it, and ſo you ſhall leave a round rock to the ſouthwards againſt it on the larboard ſide, & ſayle through betwixt them: this channell lyeth throug northweſt. At the weſt-end of the great Iſland Steendeur lyeth a little black Rock, you muſt run about by it again to the eaſtwards.

Little Daler.

Hart-ſtick.

Steen-deur.

From Steendeur to Kow-haven, the courſe is eaſt north-eaſt 2 leagues, that is a rock lyingh in the broad Sound, leave it on the ſtarboard ſide, and ſayl to the weſtwards of it alonghſt by the weſt-land unto Berck-haven. Betwixt both about half wayes lyeth a haven, called the Croſſe-haven, there it is good lyingh for weſt and northweſt winds.

Kow-haven.

Berckhaven lyeth from Cow-haven n. e. & by north diſtant about 2 leagues: this is a haven betwixt two Iſlands where is good anchoringh for all winds, as well for them which come from Stockholm, and deſire to ſayle to the Northbodem, as alſo for them that will ſayle off towards Landſoort, there is (like as at moſt places betwixt the roks and Iſlands) good clay-ground. When you come from Kow-haven, and are bound to Stockholm, you muſt leave theſe two Iſlands of Berckhaven on the ſtarboard ſide, and run in about betwixt them & the poynt of the mayne land. From the narrow betwixt Berkhaven & the foreſayd poynt to Duerhaven, the courſe is northweſt about a halfe league. On the ſouthweſt-ſide of that fareway thwart of the poynt over againſt Duerhaven, lye two ſuncken Rocks on each-ſide of the poynt one, the one on the northweſt-ſide, & the other on the ſoutheaſt-ſide, commonly there ſtandeth upon each of them a little Tree for a beakon.

Berck-haven.

Duer-haven.

From the poynt of Duerhaven unto the Draybome, the courſe is ſouthweſt and by weſt ſomewhat weſterly about a halfe league, it is called alſo the Duerhaven, of from the poynt with in the Iſlands untill you come before the buye, alonghſt there, and alſo within the Iſlands, it is good lying every where.

The little Iſlands which lye in the channell of the Draybome, you muſt leave them on the ſtarboard ſide of you.

Dray-bome.

From the Draybome to the Windſtream, the courſe is firſt north, & north & by weſt untill about halfe wayes, there you ſhall find a little Iſland with a little Tree, leave that on the larboard ſide, and goe from thence in north-northweſt to the Windſtream. In the Windſtream is a good anchoringh by the ſhoare, except in the north-end of the ſtream, there is no anchor ground. From the Draybome to the Windſtream it is about a league diſtance.

Wind-ſtream.

From the Windſtreame to the Seugh, the courſe is weſt-northweſt a half league, that is a chindle or Stonebanck even with the water, runne alonghſt to the northwards off it, and leave it on the larboard.

The Seugh.

From the Seugh to Scheggen, the courſe is weſt and by north a league, run alongſt there by the ſouth-ſhoare. When you come againſt Scheggen, you ſhall ſee upon the poynt of the ſouth-ſhoare a litle round Tree, over againſt that litle Tree ſomewhat more northerly then in the middle of the channell, lyeth a ſuncken rock, for to avoyt it you muſt run neareſt the ſouth-ſhoare. The reach off Scheggen lyeth throug weſt, & weſt and by ſouth about an Engliſh mile, it is narrow, buth hath every where anchor ground.

Schegg-gen.

From Scheggen, the courſe is weſt ſ. w. an Engliſh mile to Steckſound, or weſt to Kings-deep, the little Iſland on the ſtarboard ſide, as you ſayle to Steckſound, are cleane round about, ſo that you may goe on alſides about by them.

Steck-holm.

Com-

Comming close to Steck-sound you shall finde a sunken rocke a little by south the fareway. The Steck-sound lyeth throug s. s. w. it is a short Inlet about a cables length long.

From Steck-sound unto Waxholm it is s. w. westerly above an English mile. Upon Waxholm standeth the Kings Castle, there all the ships are visited whether they go up or down, the channell there by it, is paled to so neare, that they can shut it wit a barre.

Wester reach. From Waxholm to the Wester reach, the course is west southwest and through the Wester reach southwest. From thense alongst west to Eeldam, that is a very narrow channell a little more then a ships lengt broad.

Eeldam From Eeldam, the course is west to Mouscholm, which is about a league from Waxholm, men leave the high rough Mouse-holm on the starboard side, and run alongst by it to the southwards.

Mouse-holm. From the Mouse-holm to Kingshaven it is a league west and west and by north all alongst by the southland.

Kings-haven. From Kingshaven unto the town Stockholme, the course is n. w. and n. w. and by west also a league distance along by the shoare. When you come before the Towne, you may anchor where you please.

Stock-holm. He that falleth to leewards, or by any other accident cannot come by Landsoort into the Liet of Stockholm, he may sayl in more to the northwards through divers channels. Amongst others there is one where men may sayle into, & come by the great Daler into the Lieth: there goeth anchor in by the Swedes-sand, throug it men come by Berckhaven into the Lieth. The knowledge of this channell is a very high rock, with another that is not so high, there by to the southwards of it, betwixt these two rocks goeth in this channell, it is very narrow in the commingh in, not above 2 shippes lengths broad. So soon as you come in within these rocks, you may edge up about by the lowest, which is the southermost, & anchor under it in very good anchor ground.

From that road in the Swedes sands the Sound goeth up first about n. w. & by north & n. w. 5 leagues unto Berckerhaven into the Lieth of Stokholm. This is a very easy channell as well for to sayle in as out, but because it is not easy to bee known, comming in out the sea, it is seldom used.

To the southwards or the westwards of these 2 foresayd rocks, at the commingh in of this channell, it is all low land. If you come from the southwards, and run alongst by that low land, so longh untill that you begin to get the hig land, you shall also run in sight of these two foresayd hommocks. About a league to seawards from them, lye 3 or 4 small rocks; for to sayle in there you must leave them on the starboard side, and in sayling out on the larboard side.

From the southend of Oeland to the southend of Gotland, the course is e.n. e. & n. e. & by east 23 or 24 leagues but to the Karels n. e. somewhat northerly 27 leagues.

The course alongst the fareway, for to sayle from the south end of Oeland throug betwixt Oeland and Gotland, is northeast and by north.

The Island Oeland is twentie four leagues longh, and a league and half broad, when men sayl alongst by it, they may countie 18 towards upon it, which are al flat the e. coast is a clean coast, and lyeth n. n. e. & s. s. w. but about 7 or 8 leagues to the southwards of the north end, there shooteth of a little riffe, thwart from the land a great half league into the sea, which men must avoyd: by it goeth in a little haven, where indifferent shipps may goe in, otherwise Oeland hath no havens.

From the south end of Gotland runneth of a foule stonie riffe, a good wayes in to the sea, you may run about by it upon the lead in 7, 8 and 9 fathom.

The Karels are 2 little hig Islands, lying on the w. side of Gotland n. and by w. about 7 leagues from the s. poynt of Gotland, & e. and w. about a halfe league one from the other, the greatest is called the greate Karell, and lyeth a great league from the land, the smallest the little Karell, and lyeth about a halfe league from the shoare. When you come from the southwards, the greate Karell sheweth it selfe in 2 hommocks, & the little Karell in one hommock, and nearer to the land. Under the little Karell is round about good roade, in 8, 9 and 10 fathom, and is round about clean and cleare, without foule grounds.

The great Karell.

Little Karell.

Men doe anchor betwixt it & the land, in 6 or 7 fathom, there it is good lying for all winds, as well for them that are bound to the eastwards, an to the westwards. He that shall be to the northwards of Gotland, and shall get a contrarie wind, may also anchor under the great Karell, but under the little Karell is farre the best roade. Under the great Karell men may anchor, on the west and eastside, but on the north & southside it is foule, therefore come no nearer it by night, then in 11 or 12 fathom. Betwixt the two Karels it is 13 and 14 fathom deep.

About half wayes betwixt the Karels & the south end of Gotland. s. s. e. from the Karell, lyeth the haven Boswyke: thwart of it runneth of a ridse, an the northside of the haven a good wayes from the shoare, come no nearer it then in 7 or 8 fathom. When you are thwart of the south poynt about a halfe league from the land, and will sayle alongst to the northwards of Gotland, you must not sayl on more northerly then northwest, as well for to avoyd that riffe of Boswycke, as for to sayle a weather the Karels. Boswyke.

Four leagues n. e. from the Karel, lyeth the Island Reef holm, thwart of it men doe runne into westergorre: you may sayle & anchor round about it. A little to the northwards of it lyet the n. w. poynt of Gotland. Reef-holm.

Two leagues to the northwardes off the high poynt lyeth the towne Wisbuy, about seven leagues northeast from the Karell. Men were wont in old tyme to lye there behinste head or Chest.

Wisbuy hat bene in tymes past a famous marchant towne, where was wont to be drieven greate trade off Marchandize, but it is now throug the will of God, altogether fallen down, and come to nothingh. The Hance towns have a longh time there held their staple. The old Sea laws were made there, and also the old samons Read-carde. Men may see yet to this day many old ruinos houses of costly marble & hewen stones, wereby men may partly perceive and judge, what manner off staltenisse there hath been. Wisbuy.

From Wisbuy the coast lyeth forth n. e. and by east towards the end off Gotland about 9 leagues. But from the Karell to Gosne sand, the course is n.e. 21 or 22 leagues: there is a little Island, whereupon dwelleth no people, and standeth full of trees: you may sayle round about it, which hath a white strand. From the n. w. poynt thereof shoteth of a little rif and likewise one from the south poynt, a good wayes of into sea, towards the north end of Gotland. On every side of Gorse sand, you may anchor in 6, 7, 8, 9, 10 and 12 fathom, and clean and good anchor ground, but these foresayd riffes you must avoyd. It lyeth n.n. east 6 leag. distant from Faro, the n. end of Gotland, when you ly there onder it at anchor, you cannot see Gotland.

The Copper stone lyeth from Gotsche sand northwest and by west distant thre great leagues.

Upon the send of the e. side of Gotland standeth a high tower, called Horbroug, & there after the south end of Gotland also is called Horbroug, by it goeth in a little river, before which you may anchor in six of seven fathom.

Five leagues northeast from the a foresayd south poynt lyeth Heyligh-holm, which is a good haven, but by reason it is but little used, it is therefore also but little known.

Two leagues to the eastwards of Heyligh-holm lyeth the haven of Narwyck, upon the east side of the Haven lyeth a long rock, by which you must run in, and leave another sharp rock on the larboard side, within the haven you may anchor in four or five fathom.

Two leagues to the eastwards of it lyeth Sandwyk which is a good haven for a west, n.w. n.e. and s. e. winde, and lyeth in about north, a south-winde bloweth there open in: On the east poynt, (which is a low bare poynt) lyet a Holme, which is fast to the land, upon it standeth a warder: From this poynt runneth off a little sandriffe, which you may found about in 5 or 6 fathom. Within at this Holm is a bridge of Masts which lyeth off a little from the scoare. If you wil anchor there in the Haven, then run in alongst by the east shoare, untill you come whith in the bridge, and anchor there nearest the shoare, so that the foresayd east poynt do stand southeast, or s.e. and by south from you. In 4 fathom, four & an half, or 5 fathom, there is cleane clay sand ground, and very easy lying for west, north and east winds.

A league to the eastwards of Sandwyck lyingh the Island of Eastergore, about halfe wayes betwixt bot the ends of Gotland n.e. from the s.w. poynt this is a bare Island without trees. Under this Island is very easy road for al winds, as wel for them that are bound to the eastwards, as to the westwards. Comming from the w.wards, or from Sandwyk alongst by the land, then is the n. w. poynt (which is a hig bare gray poynt) hidden behinde a poynt of the maine land of Gotland, so that it seemeth a farre of to be no Island, bot comming near it, it openet it self, that you may see large enougt through betwixt them: saile in there betwixt them both in the midst off the channel, it is there clean & clear, but somewhat uneven of ground, to wit, 8, 10, 12 and 14 fathom, but you need not feare. If you wil anchor under it for n e. or east-winds, then anchor betwixt the land & the Island, so that the a foresayd bare gray n.w. poynt stand n. & the southermost east from you, in nine or 10 fathom. Or if you will anchor for a s. s. w. or west winde, then run further in about by that a fore sayd bare gray poynt, bring it s.s.w from you, & anchor there in 7, 8, 9 or 10 fathom, there it is cleane ground of smal white & black sand. A little to the northwards of the Island is a great Bay on Gotland, there you may also anchor in 7 and 8 fathom, for westerly windes. Eastergore.

If you will sayl in or out, to the northwards of Eastergore then come not very near the Island, because there lyeth of a ritle from the east poynt farre into the sea, which is a great half league without the land, not deeper then 2 fathom and a half, stony and very uneven, and is to be thought, that nearer to the land it is shoaler & fouler. From the s. e. side runneth of also a flat, a good wayes to Seawards, at some places not deeper then 3, 4 and 5 fathom, and also very uneven, where of you must take heed.

Foure leagues north and by east from Eastergore lyeth a haven, called Sliet or Sliet haven, lying in north and north and by west, behoud some little Islands, there is good lyingh for easterly, westerly, and north winds. Upon one of the northermost little Islands standeth a ruinos church. You must come in there alongst by the shoare from them southwards. From thence to Farosound the coast lyeth north and by west two leagues.

Faro sound you may run into, in 2 and 3 fathom water, there standeth a Church with a flatte steeple upon the land. From Faro sound lyeth off a foule dangerous riffe, a league and halfe, or two leagues into sea, called Sal-fonteyn, you must take very good heed there of, when you will run about to the northwards of Gotland.

From Farosound to Gotscheſunt, the course is n.n.e. about 7 leagues.

Of

Of the depths & grounds about theſe Coaſts.

Betwixt the ſouth ends of Oeland & Gotland in the fareway, it is uneven for to ſound, ſometimes men have 22, 23, & ſometimes againe 28, 29 and 30 fathom, all black mingled ground, ſometimes ſtones ſo great as peaſe, of colour like black earth.

When Howbrough is n. n. e. 7 leagues from you there it is 15 fathom deep, ſtonie-grounde, from thence on northeaſt 2 leagues, there it is 20 fathom deep, foule ſtonie ground. Neare about the places, ſo far from land that you cannot ſee Gotland, are banks, where it is not deeper then 12 fat. The like uneven grounds are alſo thwart of the ſouthend of Oeland as hath beene ſayd in the former, but betwixt them both is deeper water. If you kome in the fareway from Rye to Brontholm betwixt the ſouth-ends of Gotland & Oeland, and muſt lye by with contrary wind, when you are in 10 or 12 fathom, and then ſayle towards Oeland, you ſhall get deeper water.

If you lye by betwixt Oeland and Reefcoll, and that Reefcoll come ro bee ſ. ſ. e. and ſ. and by e. from you, ſo farre without the land, that you cannot ſee it, then you ſhall get alſo the like uneven ground of 10 and 12 fathom, redde groſſe ſtonie ſand, and alſo blackiſh groſſe ſandie Stone-ground. If you bee neareſt to Oeland, you ſhall get in 10 or 12 fathom pittes in the tallowe, ſo that it ſeemeth that theſe grounds of Oeland doe run over unto or neare Reefcoll. The like grounds and unevenneſſe doe ſeme to lye over the ſea alſo from the ſouth-end of Gotland towardes Roſe head: for when the ſouth-end of Gotland commeth to be about north from you, althoug it be 14 or 16 leagues from you, you ſhall finde depth of 16 & 20 fathom ſoft grounde, like as of from Oeland, but if Gotland be more eaſterly or weſterly from you, you ſhall have deeper water.

When you are about a league by weſt the ſouthweſt-poynt of Gotland, ſo that is be ſoutheaſt or e. ſ. e. from you about a league, then Karels lye about north from you, which you may even ſee in cleare weather, there aboutes it is ſhoale water a good wayes of from the ſhoare, when the weſt-poynt or ſteepe point is about north from the ſhoare. When the weſt-point or ſteepe poynt is about north from you a little to the eaſtwards or to the weſtwards of it, there is 10, 12, 14, 16 & 18 fathom deepe, a great wayes from the land: but when that poynt cometh to be northeaſt, eaſt northeaſt, or eaſt from you, there it is above 40 fathom deep.

Betwixt the ſouthweſt-poynt of Gotland, & the north-point of Oelant it is alſo very deepe, ſo that there you cannot caſt ground with 40 fathom.

When you are northweſt and northweſt and by north about two leagues from Houbroug, there you have great red ſtone ſand, and black ſtones, in it, ſo great as beanes.

Betwixt Gotland and the Sweeds ſchares in the fareway e it is 34 & 36 and 38 fathom deepe, and cloſe by Gotland 25 fathom.

When the Tower of Houbroug is weſt northweſt from you, ſo farre as you may ſee it from the poope, there it is 30 & 31 fathom deepe, but being north northweſt from you it is ſhoaler, 25 & 26 fathom.

Betwixt Howbroug & Eaſtergore lyeth a banck of 24 fathom, groſſe red ſand, ſo farre without the land, that you cannot ſee the land out of the top. To the eaſtwards of it lyeth another banck of 14 fathom gray and white ſand when you are over it, you ſhall have no ground in 40 fathom.

Two leagues without the land, by weſt Eaſtergore, there it is about 31 fathom ſoft ground.

He that ſayleth from Brontholm alongſt by Oeland towards Eaſtergore, let him not ſpare his lead, but ſound of ten for theſe a foreſayd bancks and groundes; thereby you may well make ſome reckoning.

If you ſhould make reckoningh to come by night with Gotland on the ſoutheaſt-ſide, and have no good ſight, then come no nearer the land (about the north-end or ſouth-end, alſo by Faſtergore) then in 20 or 24 fathom, and ſo you can take no hurth by night. By day you may come neare enoug to it at many places, in 7, 8 or 10 fathom.

How theſe Lands doe lye one from the other, and from the other Lands.

From Houbroug to Eaſtergore northeaſt	12 or 13 leagues
From Eaſtergore to Faro ſound north and by eaſt	7 leagues
From Faro-ſound to Gotſcheſand n. n. e. and n. & by eaſt	6 leagues
From Houbroug to the Karels north northweſt	7 leagues
From the Karels to Wisbuy northeaſt	7 leagues
From the Karels to Gotſcheſand northeaſt	21 or 22 leagues
From Houbroug to the north-end of Oeland northweſt	14 leagues
From the Karels to the Sweedes Jonckvrouw, w. & by north	13 leagues
From the Karels to the Channell of Stockholme, north, a little more Weſterly	23 leagues
From the Karels to Boeckſchaer northeaſt northerly	46 leagues
From Gotſcheſand to Boeckſchaer, northeaſt and by north, a little more northerly	20 or 21 leagues
From Gotſcheſand to the ſouth-poynt of the Alands-haff, north and by eaſt	33 or 34 leagues
From Gotſcheſand to Uttoy northeaſt and by eaſt	36 leagues
From Cotſcheſand to Dagerorte eaſt northeaſt	26 leagues
From Gotſcheſand to Derwinda, ſoutheaſt	31 or 32 leagues
From Eaſtergore to Dagerorte, northeaſt and by eaſt	39 leagues
From Eaſtergore to Derwinda, eaſt and by ſouth	29 leagues
From Eaſtergore to Quinsbroug-deepe, ſouth and by eaſt	52 leagues
From Eaſtergore to Roſe-head ſout and by weſt	45 leagues
From Houbroug to Hondſorte, e. n. e. & n. e & by eaſt	50 leagues
From Houbroug to Lyſerorte, e. & by n. ſomewhat eaſterly	40 leagues
From Houbroug to Derwinda, eaſt ſomewhat northerly	37 leagues
From Houbroug to Dermemell ſoutheaſt	37 leagues
From Houbroug to Quinsbroug-deep, ſouth ſoutheaſt	48 leagues
From Houbroug to Roſe-head ſouth	35 leagues
From the north-end of Gotland to Derwinda, eaſt ſoutheaſt ſomewhat ſoutherly	28 or 29 leagues
From Scheggens to the Sweedes Joufer northeaſt	7 leagues
From the Sweedens Joufer to Ideſound the Channell of weſterwycke, or Silbuy, north and by weſt, ſomewhat weſterly	7 leagues
From the Swedes Joufer to Northeroorden, the north-end of Oeland, eaſt and by north	3 or 4 leagues
From Northeroorden to the channell of weſterwycke, n w.	8 leagues
From Northeroorden to the Barſound, north and by weſt	15 leagues
From Northeroorden to the Hevering, or the channell of Nycoppingh, north	18 or 19 leagues
From Northeroorden to Hartſoe north and by eaſt	20 or 21 leagues
From Northeroorden to Landſoort north northeaſt a littlle more northerly	21 or 22 leagues
From Hevering to Landſoort eaſt and by north	6 or 7 leagues.

How theſe Lands doe ſhew themſelves at Sea.



Thus ſheweth the weſt-point or n. w. point of Gotland, when you come from the ſouthwards.



When Gotſcheſand is northeaſt from you two leagues, it ſheweth thus.



In this forme ſheweth the land a little to the weſtwards of Eaſtergore, when that poynt is a great league weſt from you, there it is 24 and 25 fatum deep, ſoft ground.



Eaſtergore being a league weſt from you, ſheweth thus, there it is 25 fathom deep.

FINIS.

The ſecond Part of the New

SHINING SEA COLUMNE
OR
SEA MIRROUR.

The firſt BOOKE of the

VVeſterne Navigation.

CONTAIGNING

The Deſcription of the Sea-Coaſtes of Holland, Zealand and Flanders, from Teſſell to the Heads of Dover and Calice.

The firſt Demonſtration,

Where in are Delineated

The Teſſel-ſtreame, and the Channell of the ſame.

Pampus.

WHEN you ſayle from Amſterdam to the Fal of Urk, you muſt keep the middle of the channel, in ſayling to Tyoort, and from thence over Pampus, with a ſhip of great draught, that draweth 10 foot or more, keepe Marcken Church without to the land of Udam, called Schyteldoeks-Haven, ſo long until that the ſteeple of Zuyderwouw come paſt Kinnigerbuert, which are the houſes halfway betwixt Schyteldoeks-haven & Durgerdam, goe then towards the land eaſt, until that the New Church of Amſterdam come about Durgerdam, keepe that ſo ſtanding, until that the Church of Weeſp be com paſt the Houſe or Caſtle at Muyen, ſo that it do ſtand ſomewhat nearer to Muyen, then to the Houſe, keepe Weeſp ſtanding ſo, until that Edam come without the eaſt-end of Marcken. In this farewai it is a foot deper, then if you ſailed rigt throug.

For to avoyde Muyenſand, men were wont to bring the houſes which were woat to ſtand upon Tyoort to the ſouthwards of the Heyliger-ſtee at Amſterdam, thereby you may make ſome reckoning, they are good longſt markes: when Monnikedam is about the weſt-end of Schyteldoeks-haven, and the houſe at Muyen betwixt Weeſp and the Church at Muyen, then are you thwart of Muyen ſand. For to ſayl rigt throug over Pampus, then keepe the ſteeple of Dimen over or about the point of Tyoort, ſo long as you can ſee Tyoort, that is a rigt longſt marke for to ſayle over Pampus.

When you are come thwart of the eaſt-end or Marken, goe then on n. e. or ſomewhat more eaſtwardly toward the Fall of Urck, which is 7 leagues: when you are come with a great league of Urck, you ſhal meete with a hard ſand, called the Houtribbe, lying ſ. e. & n. w. thwart over the Farewaye, there is no more water upon it, then upon the Flat of Wieringen, of Freeſland, you ſhal finde alſo not deeper water there then 8 throug. When Enckhuyſen lyet n. w. and n. w. and by weſt from you, then you are upon the Hout-ribbe. Before that you come agaynſt the ſand, you can by nigt ſee the fire upon Urck. When that Urck or the fire is more northerly then n. e. from you, and that you get ſhoalingh, then that is certaynly of the Hout-ribbe: for ſo you cannot come to neare the Enckhuyſen-ſand.

The Houtribbe.

When you come from the ſouthwards, you are not about the Enckhuyſen-ſand before that the Church upon Urck come without the little village of houſes, which is then eaſt and by ſouth & e. ſ. e. from you: of that then you goe affay n. w. and by w. or w. n. w. you ſhal runne cloſe alongſt by the ſide of the ſand. With a ſhip of great draught, bring the Church a good way throug the houſes, until that it ſtande e. ſ. e. from, then goe bouldly on n. w. and by w. or keepe Medenblick without the poynt of the Ven, and ſo you ſhal not come to near neither to ſand nor ſhoale. Likewiſe if you come from the northwards, and bring Urck not more eaſtwardly then e. ſ. e. from you, then you cannot take hurt alſo of the Enkhuyſen-ſand. From Urck to the buyes upon the Cripple and Hof-ſteede, the courſe is n. w. and by weſt with that courſe you may runne al alongſt unto the ſouther-buye upon Wieringen Flat: in turning to windwards, you may wel bring Medenblick a little within the point of the Ven, but when as Medenblick is without it then you are in the rigt fareway.

Marks of Enkhuyſen-ſand.

Betwixt Urck and the buye upon the Hofſtede n. e. ſomewhat eaſtwardly from the ſteeple of Enckhuyſen lyeth a little plate of hard ſand, lying towards the end off Enckhuyſen-ſand, which it not deeper then the Frees Flat, about to the eaſtwards of it, is the deepeſt water, but about to the weſtwards of it (by ſome called the Katte-gat) you ſhal be ſoner about the Highorne, or the Enckhuyſen-ſand, and it is good for ſhips that draw but little water.

Marks of the Buyes upon the Hofſtede & Cripple

The thwart markes of the buyes, bot upon the Cripple and Hofſtede; Grootebroek and Hem (two ſharp ſteeples) rigt one in the other, and Warnis, a little ſharp ſteeple in Freeſland to the ſoud-ſide of the cliffe of Staverne, then you have the length of theſe buyes, which lye each of them 3 fathom, the one on the eaſt ſhoare, & the other on the weſt ſhoare upon the tayle of the Cripple. There is the rigt fareweye, 2 foot leſſe then 5 fathom, and ſoft ground. When the ſteeple of Medenblik commeth to the nordwards of the houſe of Medenblick, ſo far as the houſe is broade, then you are cleare of Cripple ſand, and paſt it; goe then on n. w. and n. w. and by n. to the buye upon the Creyl, according as the winde and tyde ſhal be, the right fareweye there, is deep 5 fathom ſcarce. Thwart of the Creyl, in ſayling out, or about the Creyl, in ſailing in, that is a litle within the Creyl on the north ſhoar, lyeth alongſt the reach, towards the buye upon the Hofſtede, a hard ſand or plate, called the ſoud Creyl upon

The Creyl.

South-Creyl.

upon which there is no more then 12 foot water, at low water, betwixt that bank and the nord ſhoare it is 3 fathom deepe,& ſoft ground, & to the ſoudwards, or the weſtwards of it, 4 fathom & an halfe. When Mirnes,a little flat ſteeple in Freeſland, commeth over a long countrie houſe to the ſouthwards of the Cliffe of Staverne, then you come right thwart of that foreſayd plate.

Mark of the Creyl. The markes of the buye upon the Creyl, are the ſharpe ſteeple of Twiſch over the Cornemill to the weſtwards of Medenblick,& that little flat ſteeple of Mirnes to the ſouthſide or eaſt-ſide of the Cliffe. The right fareway there is 4 fathom and an half, and 5 fathom deep, ſoft ground, the buye lyeth in 4 fathom,if need require, men may runne wel a cables length about to the eaſtwards of it.

Markes of the beakon upon Cripple ſand. From the Buye upon the Crippell, which lyeth upon the eaſt-end of the Cripple-ſand, 3 fatum unto the Beakon upon Cripple-ſand, the courſe is northweſt and by weſt,& northweſt. When Lutkebrooke,a ſmall ſpire ſteeple commeth to Hem (which is alſo a ſpire ſteeple) then are you thwart of that Beakon. From the Beakon upon the Cripple, unto the ſouther buye upon Wieringer-flat, the courſe is northweſt & by weſt, or weſt northweſt,according as the wind & tyde ſhall ſerve, it lyeth at high water with an ordinary tyde in 13 foot and a halfe, the markes there of are theſe: Grootebrooke commeth betwixt two Hay-ſtacks to the eaſtwards of the five Water-mills, which ſtand to the eaſtwards of Warvers-hooſt, that is a long marcke in the ſouth. Twiſch a ſharpe ſteeple to the weſtward of Medenblick, commeth over Almerdorp, there was wont to be a little flat ſteeple, but it is fallen downe, and therefore now not ſo well to be knowne, that was a right thwart marke. Upon Wieringen ſtandeth a Cape, bring Eaſt-lander ſteeple, which is a flat ſteeple upon Wieringen, right over the Cape, and ſayle ſo right with it,and you ſhall come right with the Buy. When you are the buy, Weſtlander Church commeth then over Cleverſtee,and the 8 mills to the eaſtwards of Medenblick, a little without the Towne. For to finde the deepeſt of the flat commingh from the Cripple, you muſt be carefull to looke out for the foreſayd marckes. If that Twiſch come firſt to Almerdorp, before Cleverſtee come to Weſtlander Church,then you are to neare to Breeſand, or the grounds on the ſtarboard ſide: theſe are ſure markes for to ſaile over the flats, when there lye no buyes. Alongſt to the eaſtwards of the buye is the deepeſt water. If you will anchor before the Wieringer-flat,then come no nearer the flat,then when Twiſch commeth a little to the northwards of Opperdoes, or halfe way betwixt Opperdoes and Almerdorp.

Markes of the ſouther buy upon the Flat

For to ſail over the Gammels to Medenblik. For to ſayle from the foreſayd ſouther-buy over the Gammels to Medenblick, you muſt bring the weſtermoſt watermill of the eight (which ſtand to the eaſtwards of Medenblick) a Capſtone barres length without or to the eaſtwards of the Bulwarke of the Towne,& ſaile then boldly without feare right in with them, untill that you come into the road where the ſhipps commonly lye, or elſe,if you deſire to goe into the Haven,then ſayle in right to the norther head,there is nothing that can hurt you, but if you muſt turne to windwards over the Gammels, & that your ſhip draweth more then 11 foot water,then runne not further over to the weſtwards, then that the foreſayd Water-mill commeth almoſt within, or a handſpikes length to the foreſayd Bulwarck, ſo that yet you may well ſee throug betwixt them, then caſt about,and run over to the eaſtwards,ſo long untill Grootebrooke come in the five Water-milles, which ſtand to the eaſtwards of Warmershoof,or on to the eaſtwards of them, ſo you ſhall not doe amiſſe, for it is there broad and wide.

If you deſire to ſayle over the Gammels to Medenblick, when you come from the Flie,then bring the ſteeple of Opperdoes over the weſtermoſt Watermil of five, which ſtand to the weſtwards of Medenblik,& runne in ſo rigt wit them, untill that the weſtermoſt Water-mill of eight (to the eaſtwards of Medenblik) come to ſtand a capſtone barres lengt without the Bulwark,as here before once already hath been ſaid. Having theſe marcks thus,& that it doe become darke, then goe on ſouth & ſout & by eaſt,according as the wind & tide ſhall ſerve,& you ſhal not doe amaſſe,neither ſhal you miſſe the Town. In this foreſayd fayreway,there is no leſſe depth then upon the Wieringer-flat, and all ſoft ground.

When the ſteeple of Twiſch is over the weſtermoſt Water-mill except one of the five which ſtand to the weſtwards of Medenblick,& Groote-brook,in the little village, to the eaſtwards of the five Water-mills on the Eaſterdyke, then are you in 13 foot from the northweſt-poynt of the Cripple, and paſt the tayle of the Cripple. Upon theſe foreſayd marckes, and 13 foot, lyeth a buye with three legges, and on the foreſayd weſt-ſhoare lye three drift-beakons in 12 foot, and then commeth the weſtermoſt Water-mill (of the eight which ſtand to the eaſtwards of Medenblick) & ſo you ſhall not have leſſe water then upon the Wieringer-flat.

For to fayl over the Wieringen Flat. From the Souther-buye to the ſecond or middle-buye,the courſe is northweſt & northweſt & by north: but for to find the deepeſt water, goe firſt northweſt ſo long untill that Ypels-hoofs Church come over the watermill,which is called the Boll-mil,& then forth northweſt & by north. When the Corn-mill upon Wieringen commeth in the ſwamp of the Oever, then you have the length of the ſecond Buye, which lyeth upon the weſt,or the ſouth-end of a litle plate, called the Repell, the fayreway is alongſt to the weſtwards of it, there being at low water 2 fathom large, and at high water ſcarce 3 fathom deep. On the weſt-ſide of the fayreway, betwixt the ſouther-buye, & the middle-buye, neareſt the middle-buye,lyeth a hard ſand called the Sow, or the old Sow, which on the eaſtſide is very ſteepe and needle to which (inſayling up)men might faile within a poynt or tayle of it: to the weſtwards of it ſhoteth of another tayle to the northwards, a great wayes towards the northeaſt-buye. Upon the outhermoſt, or northermoſt-poynt, called Seugoort, ſtandeth alwayes a beakon. Upon Wieringer upon the Oever ſtand two little Capes with barrels on them, the one upon the north-end of the Oever, and the other upon the head, they are ſo little, that you can hardly ſee them: when you come of from the ſoutherbuye towards the midlebuie,then keepe them not one in the other,for if you keepe them one in the other, then you will be very cloſe by the ſouth-ſhoare, & ſhal but even run cleare of the old Sow,but keep the ſouthermoſt a little to the weſtwards of the northermoſt, and then you ſhall run alongſt the right fareway, & ſhall not take any hurt of the old Sow. When you come neare the middle-buy, you muſt leave theſe marcks and uſe them then no longer.

From the middle-buye unto the northerbuye,the courſe is n.n.w.when you come twart of the northerbuye,then commeth Ooſtlander Church & the Cornmill both over a little Chappel covered with red tiles, that ſtand upon the Oever, thwart of it alſo ſtandeth the foreſayd beakon upon Seugoort. By the norther-buye it is ſcarce 3 fathom deepe at high water,the fareway is alongſt to the weſt-warde of it. When you come by the northerbuye, keepe ſtill the foreſayd n. n. w. courſe, untill that Ooſtlander Church come to the northwards of the Sedgedycke of the Oever, and then you are paſt the little Plate which lyeth by the Northerbuye.

When as that Ooſtlander Church commeth from the Sedge-dyke, goe then north, & north & by eaſt on, to the Neſſe. In that fareway it is broad & wide the weſt-ſhoare all alongſt unto the Neſſe, is very flat, there you cannoth take any hurt, but may boldly run alongſt by it, although it where a led ſhoare, but the eaſt-ſhoare is ſteepe, eſpecially ſomewhat farther out towards Jaepvaer, when the great Cape from Wieringen ſtandeth a great ſhipps length to the eaſtwarde of the houſes upon the Oever, then you are well to waye,& rigt in the fareway, betwixt the northerbuye & the Neſſe. When Ypelshoof & Stru are one in the other, there is the roade, where men doe lade and unlade, you may anchor there abouts in the middeſt of the fareway in foure fathom, the nearer the eaſtſhoare the deeper. Jaepvaer is a tayle of ſand or Plate faſt to the ſhoare, which you might ſayle within where you ſayle of, but ſpecially in ſayling upwards in 6 or 7 fathom, upon it lyeth a blacke bay. Upon the poynt of the Neſſe over againſt Jaep-vaer lyeth a white buye, theſe lye both in 3 fathom or 3 fathom and a halfe. In the winter, when the buyes are taken away, then in place of the white-buy there is ſet a beakon upon the Neſſe. From the Neſſe to the Vogel-ſand, the courſe is moſt northweſt, therefore when you have gotten the length of the buye or the beakon upon the Neſſe, goe then more weſterly,

The Neſſe.

Jaepvaer.

For to
fayl
over the
Wierin-
gen
Flat.

The
Neſſe.

Jaep-
vaer.

Cust van
HOLLANT
Tusschen de Maes
ende Texel
't Amsterdam,
By Iacob Theunisz opt
water inde
Leytsman

H O L L

Egmont
Beverwyck
Egmont op Zee
Camperdam
Petten
Groot
Texel
Hoorn
Westcapel
't Nieuwhuys
Calge
Strangaerts Gat
De Stroock
Den Helder
Groote Gat
Landsdiep
De Bree
Verdhien

Duytsche mylen 15 in een graet

Spaensche mylen 17½ in een graet

Eng: en Fra. mylen 20 in een graet

Haerlem

L A N D T

Delft

S Gravenhage

Lier

Naeldwyck

Loosduynen

Monster

Scheveling

Noortwyck op zee

Catwyck op zee

Sandvoort

Rijswijk

Swartekil

De TEXEL Stroom en de Gaten van Marsdiep.

Medenblick
Twisck
Oppendoes
Enckhuylen
Hem een hoge spitse toren
Groote Broeck een hoge spitse toorn
Luttike Broeck een kleyn Spits toornken
Geldersche hoeck
Broecker oert
Ton op de Krenpel
Werverts hoof
Zuyderton
Baken op de Krenpel
De Kille
De 8 meter steulens hoogste steden Medenblick
De Dirfstal
Middel ton
Breesandt
Noorder ton
Wierin gen
Caap
Clever sluys
West lander kerck
Oost lander kerck
Ygels hoof
Struy
Repel
Texelant
Groote Kaap
Huysduynen
Oosterend
Zuydhaffel
TEXEL.
Hoorn
De Burgh
Swart nolleken bytglop
De Westen
Westeynd
t'Ysambas
Eyerlandt
Koog
Witte hon
Slenck
Landdiep
Zuydertton van t'Wierings vlack
Bewesten de Staet
Texelse gat
Duytsche mylen 15 in een graet
Engelsche mylen 20 in een graet

Caarte vande Rede en Havens van Medenblick hoemen die comen soo van Wieringen als Vrieslandt behoeven te mogen tot dienst en nut voor alle zeevarende luyden perfectelick gemaeckt en afgeteykt. Beschreven Anno 1630 op speciale last van E. E. Burgemeesteren en de Regeerders der voors. Stadt Medenblyck.

Caerte van

DE MASE,

Ende het

Goereesche gat.

't Amsterdam,

By Iacob Theunisz op't water in de Lootsman.

Rotterdam
Delfshaven
Overschie
Scheidam
De Ketel
Vlaerdingen
Delft
Carolus
De Hey
Parmis
Hodchvliet
5 Sluysen
Bos
Strickenisse
t Lant van Putten
Sudlandt
Goetvliet
Ambroeck al-Abbenbroeck
Heenvliet
Nieuwe Sluys
Swartewael
Middelharnis
Sommerdyck
Bierslant
Maesland Sluys
Maesland
Lier
Vaelthuyck
Nieuwen Hoorn
Hellevoet Sluys
Hellevoet
Den Briel
Quack
Melissant
Monster
S. Grave sant
Ostvoorn
Reesingh
Wintgisp
De Stelle
Goeree
West Voeren
Ouddorp
Nolle
Goeree
Duytsche mylen 15 in een graet
Engelsche Fransche mylen 20 in een graet

Vogel-
sand.

Burgh-
sand.

Cope-
vaer-
ders
Roade.

The
Bosse.

Eyer-
land.

Huys-
down.

weſterly, n. n. w. and n. w. and by north and n.w. unto the Beakon upon Vogelſand; the weſt ſhoare you may ſound in 6 and 7 fathom. The markes of this reach are theſe, the Mil of Ooſter-end: (which is a little village upon the eaſt-end of Texel) & the Cape which ſtandeth upon the dyke; one in the other, then are you amiddeſt the Channel in the deepe, that is, 10, 11 and 12 fathom: when the mil ſtandeth ſomewhat to the ſoudwards, or to the weſtwards of the Cape, then are you, by ſouth ſhoare, which is very ſteep, which (in turning to windwards) you may not come nearer to in 8 or 9 fathom but being paſt Vogel-ſand, it groweth ſhoaler, and eaſt ſhoare very ſteep. As ſoone as you finde that it beginneth to ſhoale, you muſt eaſt about, elſe you ſhould preſently be on againſt the eaſt ſhoare.

Vogel-ſand.

From the beacon upon Vogel-ſand, the courſe is w. n. w. unto the buye upon Burgſand, which lyeth upon the tayle of the ſhoare, the markes of it are: the Eyerland even unto the eaſt-point of the Iſland Teſſel, and the Church of the Horne upon Teſſel to Zuyd-haffel, which is a few houſes to the northwards of the Schonce. Or elſe when you come about Vogelſand, then keep the foreſaid cape & mil one in the other, until that the foreſayd Horn come to or throug Zuyd-haffel, & then run on, keeping them ſo: When that Eyerland commeth even to the eaſt-point of Teſſel, then you have the lengt of the buy upon the Burgſand, you may bring the Horne wel ſomewhat to the northwards of Zuyd-haffel, but in no wiſe to the ſouthwards of it, for elſe you ſhould ſaile on againſt the ſouth ſhoare. For to ſayle from thence to Copevaerders roade you muſt keepe the Horne to Zuyd-haffel, & ſaile forth keeping them ſo, until you come againſt Teſſel in the roade, and anchor there where you thinke good. Before Ooſter-end it is beſt for ſmal ſhips, there it is ſhoald water, and there goeth little tide, but moſt ſhips, doe anchor before the Geeſt.

Burgh-ſand.

Cope-vaerders Roade.

Upon the point of the Boſſe lyet a white buy in 3 fathom on the weſt-point of the Balgh, which you muſt leave on the ſtarboard-ſide, & run about to the eaſtwards of it into the Balgh; & then forth alongſt by the beacons to Wieringen, you muſt leave al the beacons alſo on the ſtarboard-ſide.

The Boſſe.

For to ſail up from the Helder towards the Wieringer-flat, you muſt goe n.e. or ſomewhat more eaſterly, according as the wind and tyde ſhal be, or elſe in 8 or 9 fathom alongſt by the Teſſel, until that the Hoorn come to the northwards of Zuyd-haffel, but take heed of the Wiringen-ſide, which is ſo ſteepe there, that you may have 12 or 13 fathom at one caſt, and ſhould be a ground before you ſhould be able to heave the lead againe.

When that the Hoorne commeth then to Northwards of Zuyd-haffel, then keep them ſo ſtanding, and ſayle up ſo to the Vogelſand, when that the Eyerland commeth even without the eaſt-point of Teſſel, then you have the length of the buy upon Burghſand, which lyeth on the ſouth ſhoare, upon a tayle of ſand, which men may ſaile within at 5 or 6 fathom. From that Buy upon Burgſand, it is e. ſ. e. to the beakon upon Vogel-ſand, but ſayle upon the foreſaid markes of the Hoorn & Zuyd-haffel ſo long until that you have the Cape upon Teſſel, and the mil of Ooſter-end one in the other, then keep the one in the other leaving the firſt markes, and ſayl up ſo unto the buy or Beakon upon the Neſſe, & ſo you ſhal run amidſt the channel in the fareway which is 10, 11 and 12 fathom deep. If you bring the mil a little to the Weſtwads of the Cape then you ſhal be cloſe by the ſouth ſhoare, which is ſo ſtepe, that you may no come neare it, in turning to windwards, then in 8 or 9 fathom. Being come about the Neſſe, then go on ſouth and ſouth by weſt towards the buy upon the flat.

Of the Tydes and Courſes of the Streames about theſe foreſayd Places.

Upon the Wieringer-flat maket full Sea a ſ. e. or n. w. Moon.
Before Texel, in Coopvaerders road e. ſ. e. & w. n. w. Moone.

Heights.

The Marſdiep lyeth in 53 degrees, ſaile out of the North-Sea, (being in the heyght) eaſt on, and you ſhall fall right with it.

The ſecond Demonſtration,

WHERE IN

The Coaſt of Holland from Texel to the Maes, as alſo the Channells of Texel, the Maes and Goeree at large.

TEſſel is a long plaine Iſland, whereupon ſtand 4 Churches, the weſtermoſt hath a high ſharpe ſteeple, and is called weſt-end, or S. Johns, but by the Pilots it is called the Weſten, or the Wambus. To the ſouhwards of that ſtandeth another ſharp ſteeple, called the Hoorn. The third is called the burgh, which ſtandeth ſomewhat more to the northwards then the other two beforeſaid. The fourth is called the Oog, or the Koogh, which is the northermoſt of them al, without ſteeple, and is covered with blew flates.

Eyer-land.

The Eyerland lyeth cloſe to the eaſtwards, or to the nordward of the Teſſel, & faſt to it, when it floweth ſomewhat hig, it is divided of from the Teſſel by the Sea, & made to an Iſland: it ſheweth it ſelfe of at Sea like a Low Plaine little Iſland with little hommocks, there ſtandeth upon it no more then two little houſes.

Huys-down.

Huyſdown is a ſhort poynt of land with ſome white ſandhils, where of the greateſt and higheſt is called the Kykdowne or Kykersdowne, the next the ſoudwards of it, is called Dirckooms ſand-hil, further to the ſoudwards they run flat of by little and little, and at length to noting in a flat plaine ſtrand. Upon the eaſt-end, called the Helder, lye alſo ſome ſandy hils, betwixt the Helder & the Kykdown, it is a moſt flat ſtrand, with ſome ſandy hils like a dike, upon which (about halfe way betwixt both) ſtandeth the little or the outermoſt Cape, the great cape ſtandeth ſomewhat within the land, about eaſt from the Kyckdown.

Huyſdowne or the Marſdeep and the Maes lye ſ. ſ. w. ſomewhat ſoutherly, and n. n. e. ſomewhat northerly about 24 leagues aſunder. From Houſdown to Petten the coaſt lyeth ſ. & by w. 4 leagues. Petten hath a little Church with a little ſteeple and there abouts you ſhal ſee two other little ſharpe ſteeples in the Northland, a little to the ſoudwards of Petten lyeth the Hondboſch, a league to the ſoudwards of Petten lyeth Camperdowne the beſt land to beknown thereabouts, the north-end is a hig ſteep white ſand-hil, which goeth ſloping downe: the ſouthermoſt part is gray & roug, being grown over with head, or ſpyrie graſſe, to the ſouthwards of in lye many roug hommockes or ſand-hils where ſometimes you ſhal ſee amongſt them a white ſpot, ſo that is very good to be know. From Petten to Egmont upon the Sea, it is three leagues. Egmont upon the Sea is alſo very good to be know, for it hath a tick flat ſteeple, which ſtandeth like a ſayle in the ſand-hil, and a little to the ſouthwards of it you may ſee Egmont within, which hath two hig ſteeples upon the Abbey cloſe one to the other, where of the one is ſharpe, and the other (to wit, the northermoſt) is flat, becauſe the ſpire is lately falne downe. A little to the northwards of the Abbey ſtandeth another ſteeple of the Church upon the old wals, but is not ſo hig as that upon the Abbey: ſo that upon al the Coaſt of Holland, there is no place ſo good to be know as this. From Egmont upon the Sea, to Wyck upon the Sea are 3 leagues that is alſo a flat ſteeple: when you are thwart of Wyck upon the Sea, you may ſee Beverwyk a little to the nordwards of it, which is hig thick, and ſharp ſteeple; beſides that, you may ſee alſo betwixt Egmond and Wyck upon the Sea Caſtricom, and mere other ſharp ſteeples. From Wyck upon the Sea to Sandfort, it is 3 leagues. Sandfort hath a ſharpe ſteeple, with a hig fire-beakon, a little to the ſouthwards of it, in

Petten.

Egmont upon the Sea.

Wyck upon the Sea.

the black Sand-hill which ſheweth it ſelfe ſo like a ſteeple.

Sandfort. To the northwards of Sandfort lyeth a hig white ſandhill, alongſt over which you may ſee Haerlem, a higſquare croſſe Church, which hath a high ſharp ſteeple upon the midſt of the Church, & alſo to the northwards of it, a high ſmal ſteeple, called Baeckeneſſer ſteeple, thwart of it hath the Coaſt of Holland a great Bay. From Sandfort to Northwyck upon the Sea, are 3 leagues, that is a flat ſteeple, whereby ſtandeth a fire-beakon. To the northwards of Northwyck upon the Sea, you may ſee Northwyck within, a flat ſteeple, where upon ſtandeth a little Cap not very hig, & upon the midſt of the Church ſtandeth a little ſmall Tower. From Northwyk to Catwyk upon the Sea, it is a great league, being alſo a flat ſteeple, which in times paſt that had a ſpire: to the ſoutwards of it ſtandeth a high fire-beakon, ſeeming like a ſteeple: you may alſo ſee there abouts within the land (when you are not very farr from the ſhoare) Catwyck upon the Rhyne, & Reynsburgh, & Valckenburg, all ſharpe ſteeples. From Catwyck to Schevelingen are 3 leagues, the Quire of Scheveling Church is ſomewhat higher then the Church it ſelfe in manner as the Hagues Church: a little to the ſouthwards of that Church ſtandeth alſo a fire-beakon. About halfe a league within the land, you may ſee the Church of the Hague, which is very good to be known, the Quire is higer then the body of the Church. The Hagues ſteeple you may ſee far above any other part of the land. From Scheveling to the Heyde it is 2 leagues, & from thence forth to Graveſand, or to the north-ſide of the Maſe, one league. The Heyde is a village without a ſteeple: but a little within the ſand-hill, ſtandeth a flat ſteeple called Monſter. Graveſand is a hig ſharp ſteeple, very good to be known, which ſtandeth on the north-ſide of the Maſe. The Brill is a great flat ſteeple on the ſouth-ſide of the Maes. All this Coaſt of Holland, from Huys-down to the Maes, is altogether a clean ſtrand, which men may come ſo neare to as they will, into 4 or 5 fathom.

Northwyck. Catwyk. Scheveling. The Hague. The Heyde. Monſter. Graveſand. The Brill.

For to ſayl out at Teſſel. For to ſaile from the Coopvaerders-road out at the Teſſel you muſt goe firſt ſ. w. or ſomewhat weſterly to the Helder, or run alongſt by the Teſſel-ſide in 9 or 10 fatum untill you come neare the Helder, & then goe out weſt cloſe along by the ſhore of the Helder, & by little ſomewhat more northerly, untill that the cape upon Huys-down be one in the other, or that the greateſt come throug the ſmalleſt, to witt, to the weſtwards of it, & then goe out n.n.w. or more northerly or weſterly, according h as the wind or tyde ſhall be, until you come againſt the north-ſhoare, in 5 or 6 fatum, & run boldly out alongſt by it, untill you be cleare out at Sea.

When the Tower of Weſt-end (which men do name the Weſtern, of the Wambus) commeth to be eaſt northeaſt from you, or a little more eaſterly, then you have the length of cape and ſteeples buy, that is the innermoſt-buy of the Spanjards channell, which you ſhall eſpie on the larboard ſide. To the northward of it lye three other buyes, all alongſt the eaſt-ſide of the Keyſers-plate, neare upon one courſe, to witt, n.n.w. or a little more northerly) which you muſt leave (in ſayling out) all on the larboard ſide. The outermoſt buy lyeth from the Fourth, north ſomewhat eaſterly upon the poynt of the Keyſers-plate, in 22 foot at low water, you may run alongſt to the weſtward of it, but not far, for the Keyſers-plate is on the eaſt-ſide unto the outermoſtend every ſteep, but the eaſt-ſhoare of the deepe is flat, when you come thwart of the foreſayd outhermoſt-buy, then lieth the Kooger Church rigt eaſt northeaſt from you, and the capes upon Huys-down are one in the other.

For to ſayl in at the Spanjards Channell. For to finde the Spanjards channell comming from the northwards, you muſt bring the Capes upon Huys-down one in the other, or a little throug one another, to wit, the runner that is the ſouthermoſt and greateſt, a little to eaſtwards of the other, then they ſhall ſtand ſ. ſ. e. from you, ſayle then right in with them, keeping them ſo, & you ſhall ſayle right upon the outermoſt-buy, or in ſight of it, which lyeth (as is ſayd) upon the poynt of the Keyſers-plate in 22 foot at low water; when you come to the buy, the Kooger Church ſhall lye full eaſt northeaſt from you. Therefore if you come from the weſtwards or the ſouthwards then bring that Church not more northerly then eaſt northeaſt but rather a little more eaſterly from you, and ſayle then rigt with it, untill that the capes come one right againſt another, or elſe you ſhould ligtly ſayle upon the Keyſers-plate, which is without upon the northſide very ſteepe. Men may runne a little weſtwards of the outermoſt-buy. Alongſt to the eaſtwards of it, it is broader.

From the firſt or the outermoſt-buy, to the ſecond, the courſe is ſomewhat weſterly, and from thence to the third, fourth & fifth, which is the buy of the cape & ſteeple, it is all moſt one courſe, ſ. ſ. e. or ſomewhat ſoutherly, the buyes lye along the weſt-ſhoare, men may for need ſaile alongſt to the weſtwards of them, but not farre, for the weſt-ſhoare is ſo ſteepe, that if a great ſhippe ſhould lye with the ſtemme againſt it, there ſhould be at head no more then 3 foot, & by the mayn maſt at leaſt 3 fathom deepe, but the eaſt-ſhoare is flat, men may run alongſt by it upon their lead, untill they come within the buyes. The buy upon the tayle, that is the innermoſt-buy of the old Slenck, lyeth from the buy upon Cape and ſteeple, ſouth & by weſt & ſ. ſ. w. but the Helder ſoutheaſt men may ſayl from the buy upon cape & ſteeple, ſouth & by weſt & ſ. ſ. w. but the Helder ſoutheaſt men may ſayle from the buy upon cape & ſteeple, rigt with the Helder, without danger, or to the buy upon the taile, & from thence alongſt by the ſouth-ſhoare, which is alſo very ſteepe, or rigt to the Helder, according as ſhall be beſt convenient for the wind & tyde. The fore-flood falles very ſtrong over the ſouth-ground to the Spanjards channell, till half flood, & the fore-ebbe ſ. ſ. e. till halfe ebbe. The Helder lyeth from the buy upon the tayle, eaſt ſoutheaſt & ſoutheaſt and by eaſt. When you are come near the Helder, run cloſe by it, ſo to avoyd a tayle ſhooting of from Geeſt-ſand, which you may ſayle within as you come from the Sea, there lyeth a Buy upon it, which leave on the larboard ſide. Being paſt the Helder, goe northeaſt, or a litle more eaſterly, or alongſt the Teſſells ſide in 8 or 9 fathom, unto the Copevaerders-road. The Wieringen ſide is ſteep.

The falling of the tyde.

In the Slenck uſed to lye ſix buyes, but the ſands are growne now ſo high and have ſtopt the paſſage. The Slenck.

Within the ſixth Buy it is wyde enoug to ſayle in from thence right to the Helder eaſt ſoutheaſt.

To ſayle out at the Land-deepe, run alongſt within a bow-ſhot of the foot-ſtrand of Huys-down, and about by the heads, and you ſhall not miſſe the innermoſt-buy, lying on the ſhoals, neareſt the weſt-ſhoare in 17 foot at hig, and 13 foot at low water, that ſhoaly place is not above two ſhips lengths broad, over it, & alſo within it, it is deep enoug. Thwart of that Buy ſhooteth of a little tayle from the ſhoare towards the Buy, therefore run cloſe alongſt by the Buy, and leave it on your ſtarboard ſide in ſayling out. Beſides that Buy, there lye three other buyes in the Land-deep, which you muſt leave all lying to Seawards of you, & ſo run betwixt them and the ſhoare, when you are paſt the fourth buy, you are paſt all the ſhoale, and may ſayle where you will. The Land-deep.

To finde the Land-deep comming from the Sea ſouthwards, you muſt ſound the ſhoare in 4 fathom and a halfe and running ſo by the ſhoare, you ſhall ſayle right with the outermoſt-buy: which done, come no neare the ſhoare els you ſhould ſayle within the tayle of Arrian Bergers Creek, which ſhooteth of from the ſhoare, to the ſouth ſand-hill. Or els if you come from Sea with an open winde, then keepe the great Cape upon Huys-downe over Dirck-ooms ſand-hill, (that is, a round ſand-hill a little to the ſouth of Kyckdowne but not ſo high) and ſaile ſo in rigt with it, you ſhall then meet with the outermoſt-buy, which lyeth at low water in 4 fathom and a halfe neareſt the Weſter-grounds, or the hakes, leave it on the larboard ſide, and run in alongſt to the eaſtwards of it, betwixt it & the ſhoare, it lyeth moſt northeaſt & northeaſt and by north in, you can take no hurt on either ſide, if you take heed to keep you the ſhoare. Thwart of the Kyckdowne, or comming to the ſouthwards of it, you muſt edge a little from the ſhoare, to avoyd a ſhoale which lyeth neare ſomewhat of from the ſhoare. When you come to the ſecond buy, then commeth the mill to the northwards of Kyckdowne, and at the third, the mill and Cane Nels howſe come one in the other; which two buyes lye in 5 fathom at low water. From the third to the innermoſt-buy, it is northeaſt and by eaſt, run cloſe along

to

to the eaſtward of it, to avoyd the foreſayd little tayle of ſand, which (thwart of it) lyeth of from the ſhoare, & then forth within a bow ſhot about the heads, and ſo along by the ſtrand of the Helder.

The Maſe and Goerees-Gat.

THE Maſe is at preſent but a wyde or broad flat, having litle change of depth, which may be ſaile with al winds. When the wind is ſouth, regard the old markes, that is (comming from Sea) before you ſee the Capes, bring the ſteeple of Bril which is a ſtumpy ſteeple e. ſ. e. ſ. from you, or a little eaſt or ſoutherly after you hare gotten the cape, bring them together, and run on, or if you bring the Bril ſteeple a ſpades lengt northwards the Tower of Ooſtvoorn, and run on, you ſhal then firſt run the buy in ſigt lying in 3 fathom at low water.

To ſayle in to the Maſe with a ſouth winde.

From this firſt buy to the two & third buy, wee ſayle rigt upon the Capes. The ſecond buy lyes on 13 and the third upon 11 foote, being there come, the ſteeple of Goeree comes a little upon the foot ſtrand of the land of the Bril; the fourth buy lyeth much a like with the third right upon the capes, thoug a little more ſoutherly betweene theſe buyes the ſhalloweſt of the Maes is about 10 foote, by the fourth buy it begins to deepen, with a common low water, it is about 11 foot deep, but with a ſoutherly or ſ. e. wind it runs ſhallower. From thence to the fourth buy it is broad, ſo that there wee may ſayle in a reaſonable depth. Below the Heydyck or in moſt beacon it is much narrower. The fift buy lye diſtant from the fourth e. n. e. & n. e. & by eaſt. From the fourth buy to the fifth ſouthward along the buyes in the rigt channel it is deep 14, 15, 16 & 17 foote, & neare the fifth buy 5 fathom. The ſixth buy lyeth from the fifth eaſt & by north in 12 foote, there alongs the ſouthward it is 5 & 6 fathom deep, & is called the Pitt. Comming then a little beyond the fifth buy, ſo commeth Maeſlant Sluce and Vlaerding ſteeple together, keepe them ſo & run forwards ſo long til you bring the Old-head of the Briel in the New-head, then you may run to the land of the Briel & ſo furter alongſt the ſouthwal, til you come before the Briel where you may anchor. Now who wil run higer up the Maſe, let them run al along the ſouthwal til hee is paſt the New-ſluce, chuſe then the north-wal. From eaſt-end of Rooſenburg there comes a tayle of, which you may underſayle comming weſtwards. If then (when you are paſt the heads of Swartewal) you bring not the Briel ſteeple without or northward theſe heads, but keepe to the ſouthwards, you can not under ſaile it but muſt run farre about ſouthwards. Ful eaſtward of Heenvliet runs the old Maes in: the flood falles there very hard on, you muſt take heed that you bee not deceived with the Terweſand, that is a great flat ſand, lying foremoſt in the midſt of the old Maſe, & that lyes a greate deale drye at low water, & ſtretcheth with a long ſmal poynt weſtwards the Maes. To ſhun this, take notice of a buſh of trees, ſtanding on the ſouthwal, a little eaſtwards the Old Maes, keepe the ſteeple of Rotterdam northward that buſh, ſo ſhal you not ſaile over that Tarweſand but if you let the ſteeple come ſouthward the buſh, you ſhal ſurely ſtrike upon the foreſaid tayle nordward of th Tarweſand it is deepe, upon which you may ſaile in the old Maes even to Dort, therein lye alſo two buyes, hee who wil run upon the foreſayd Markes of the Rotterdams ſteeple & the buſh off threes, ſo long til the ſteeple of the Briel comes together with a tyle houſe, which ſtands upon the ſoud-ſide of the eaſt-end of Roſenburg, and keep that ſo ſtanding, ſo ſhal hee not miſſe of the buy. Being paſt the old Maes wee ſaile in the midſt of the water beyond Vlaerding, til wee come to the fifth Sluces, from thence you muſt chuſe the ſoud-wal, and run along neare unto it, til you come over a ſmal ſand or bancke, where with low water there is 11 or 11 and a halfe ſoot water, how neares you keepe to the ſouth-wal ſo much the deeper it is ſtretching croſſe the Maes, aſſoone as you are paſt that, ſo keepe ſtraight to the Schiedams-head, there have you the deepeſt water.

The olde Maſe.

Tarweſand.

Wil you ſayle to Delfs-haven (being paſt Schiedam) keepe the ſide of the nordwal, and run along thereby til you come before the haven and anchor there. But if you goe for Rotterdam, run along the northwal, ſo long til Ouwerſchie and the Houſe of Spanjen, come together, ſtrike then over or a little ſooner to the ſouthwal, and alongſt thereby, or bring the ſteeple of Vlaerding; when you are paſt the head of Schiedam over the third Houſe upon the Schiedams-head, keepe that ſo ſtanding, ſo long til the mil and the head of Charlois (upon which ſtandeth a little buſh of trees) come together, you ſhal leave a little dry plate lying halfe way betweene Schiedam & Delfs-haven on your larboard, & ſo run ſouthward of the dry plat under the haven. Upon this platt lyes no more then ſeven, & upon the bancke neare the haven 2 or 3 foot water, & are both very ſteep. Now when the foreſaid Mil & Charlois-head come togeth r, ſo keepe them ſtanding til you come neare the New-head of Rotterdam, ſaile them to the City, and there along cloſe in betweene the Citty and Platt, there may you caſt anchor.

Delfs-haven.

But if you wil ſayle the Maſe in with a northerly winde you muſt keepe, the upperwal that ſo you may have the ſmoothetſt deepeſt water, for by the northwal there goes in a depth where a ful foote of water and more, is then by the buyes above written and is called Everskil. To reach this, you muſt bring the outermoſt-beakons in the Bril and keepe it ſo ſtanding, til wee bring two buſhes of trees on the north-ſide eaſt of it, that is about a Gooteling-ſhot northwards the uytermoſt-buy, bringing the moſt northerly buſh in with the Delfe-ſteeple ſo are you then on the north-ſide of Everſchil, and the ſoutherly buſh to the Lier then are you on the ſouth-ſide of Everskil, then keepe ſo long betweene both til you bring the ſteeple of the Bril betweene both the Beakons (then are you rigt over againſt the Hompel) then run againe to the land of the Briel either to the Pitt or the above mentioned Souther-Gat.

How you ſaile the Maes in with a northerly winde.

The Goerees-Gat.

BEtwixt the land of the Bril and Goeree, goe in alſo two channels, the northermoſt is called the Quacks-deep, and is not for great ſhips, but onely for Smackes, & ſmall ſhippes: the other is the Goerees-gat. Betwixt theſe two channels lyeth a great plate, called the Hinder, which at low water is not deeper then 5, 6 and 7 foot. To the northwards of it goeth in the Quaks-deepe, and the ſouthwards of it the Goerees-Gat.

For to finde the Quacks-deepe comming in out of the weſt, you muſt keepe the ſteeple of the Bril eaſt from you, and run ſo in, until that great country houſe, (which you ſhal ſee ſtand alone a little within the poynt of the Quacke) come to the ſouthermoſt ſand-hils of the land of the Bril, which ſhal then ſtand neare about ſoutheaſt from you, keep that then ſo ſtanding, and runne ſo rigt in, until that Ooſtvoorn come to the weſtermoſt or ſouthermoſt ſand-hils, then runne in alongſt by the ſtrand ſomewhat more ſoutherly, until that Goeree come to the eaſtwards or within the ſand-hils, and then you ſhal bee paſt the eaſt-point of the Hinder which the Pilots cal the Buyen, runne then towards Goeree, or the eaſtwards, to Hellevoet-Sluce, where you deſire to be.

Quacke deep.

For to ſayle in at the Goerees-Gat, you muſt bring the ſteeple of Goeree, and the cape upon the land of Goeree, one in the other, and then they ſhal ſtand eaſt and by ſouth and eaſt ſoutheaſt from you: or if you can not ſee the cape, then bring the ſteeples eaſt & by ſouth or eaſt ſoudeaſt from you, according as you ſhal have the winde, ſayle in right with it, until you come hard aboord the ſtrand, & within a bawles caſt in a longſt by it eaſt & by north & eaſt in, ſo long until that the land doe fal away more to the ſouthwards: thereabouts runneth of from the ſhoare a little tayle, which men might ſayle within, in going out, but not in comming in, there you muſt edge a little further of from the ſhoare, being paſt that, luffe up againe towards the ſhoare, or haven of Goeree, and anchor there before it, or els if you wil run up the Hellevoet-Sluce, then bring the mil which ſtandeth to the weſtwards of Goeree, a litle to the northwards of the ſteeple of Goeree, keepe them ſo ſtanding, and ſayle ſo up to Hellevoet-Sluce, and you ſhal not come neare the Plate which lyeth over againſt or to the ſouthwards of Hellevoet-Sluce.

Goerees-Gat.

When you ſail in at the Goerees-gat with a bare ſoutherly winde, and that you can not bring the cape and ſteeple one on the other, you may bring the ſteeple wel e.ſ.e. or a great capſtane bars length to the northwards of the cape, & then run over untill you come againſt the ſtrand, and ſo you ſhall runne over the tayle of the Hinder in 14 & 15 foot at low water, but when the cape and ſteeple are one in the other, you ſhall not have leſſe then 19 or 20 foot. Beingh come over the tayle of the Hinder, in the rigt deepe it is 6, 7 and 8 fathum deeper water. A little within the cape or almoſt thwart of it, is the narroweſt of the channell, further in it is wyder, on the north-ſide towards the Hinder, it is riſingh ground, but the ſouth-ſhoare alonghſt by the ſtrand is very ſteepe.

Of the Tydes and Courſes of the Streames, about theſe foreſayd Places.

Upon the Wieringen-flat maketh full Sea a ſoutheaſt or n. w. Moone.

Before Teſſell, in Coopvaerders-road, an e. ſ. e. and w. n. w. Moone.

Without the grounds or ſhoals of the Teſſell, an e. & w. Moone maketh the higheſt water, & in the entring of the Teſſell, an eaſt and by ſ. & weſt and by north Moone: but the flood goeth a good while longer in. And likewiſe runneth the ebbe alſo longer out, then the loweſt water. When the Moon is ſouth, or ſomewhat more weſterly, it beginneth apparently to flow without on the ſtrand, and likewiſe upon the ſhoales.

The fore-flood, & the after-ebbe out of the Teſſell, fall both one with the other n. n. e. thwart over the grounds and channells, and right out at the Spanjards channell, untill halfe flood, &c. to the contrary, the fore-ebbe, with the after-flood fall right in at the Spanjards channell ſouth ſoutheaſt over the ſouth-grounds, and thwart over the Slenck & the other channells, untill half ebbe. A little while before half flood, the flood beginneth to runne right in at the channell, and againe a little before half ebbe, the ebbe beginneth to ſet right out at the channell. Therefore hee that will ſayle into the channells, muſt reckon his tydes very well, where in conſiſteth very much. Without before the channell in Sea, the tyde turneth about with the Sunne, ſo that when a ſhippe doth lye at an anchor without the channells, and hath neyther good nor hurth of the wayes off the Sea, it ſhould have but a little ſtill water.

In the North-Sea the tayle falleth round, more then halfe tyde, upon the Broad-fourteene, it turneth about with Sunne or the Moone, and falleth but a quarter tyde right alongſt the Sea. Nearer the coaſt of Holland and Zealand, the tyde falleth (whether it be flood or ebbe) ſomewhat ſloping towards the land, but in the midſt of the tyde, it falleth right alongſt the Sea, and in the laſt of the tyde, it ſetteth to Seawards, towards the weſtwards or the northwards.

Betwixt the Mars-deepe and the Maes in the fareway, the foore-flood commeth out of the North-Sea, and turneth about with the Moone, falling towards the land northeaſt, and northeaſt and by north.

The Fiſherman of the Maes ſay, that when they are out of ſight of the land, they can perceive in calme weather by the turning about of the tyde, they be to the northwards or to the ſouthwards of the Maes. Somewhat to the ſouthwards of the Maes, the after-flood turneth about againſt the Sunne, but to the northwards of the Maes, is turneth about with the Sunne, untill the laſt quarter, and then it ſetteth towards the ſhoare, or the coaſt next unto it. They ſay alſo, that alongſt the coaſt of Holland, men have no helpe of the ebbe in turning to windwards towards the Maes, except they bee with out ſight of the land, becauſe there go no ebbes by the land when the wind is to the ſouthwards of the weſt.

Before the Maes a ſouthweſt and by weſt, and a northeaſt and by eaſt Moone maketh a high water.

Before the Brill a ſouthweſt and ſoutweſt and by ſouth, and northeaſt, and northeaſt and by north Moone.

Before the Old Maes a ſouthweſt and northeaſt Moone.

Before Rotterdam a ſouthweſt and by weſt, & n. e. & by eaſt Moone.

Before Dordrecht a weſt ſouthweſt Moone.

In the Goerees-gat, and before Goeree, a ſoutweſt and by ſouth, and ſouth ſouthweſt Moone.

Before Hellevoet-ſluce a ſoutweſt and by ſouth Moone.

Betwixt the Mars-deep & the Maes is the fareway, the foore-flood commeth out of the North-Sea, and turneth about by little & little n. e. and northeaſt by north towards the land.

In the Sea thwart of the places (without ſight of land) is a poynt, or a poynt and a halfe later full Sea, the further from the land the later.

Not very long after that the flood beginneth to go without the Maes, it doth being alſo to go into the Maes but the after-flood falleth ſtrong in, and ſo like wiſe in the Goerees-gat. Cloſe before the channells by the land, the tyde turneth about with the Sunne, ſo that when the after-flood alleth into the channells, it turneth to the ſouthwards, & be commeth againſt a running ebbe: the after-ebbe falleth againe thwart of to Seawards out of the channells.

Of the depths & grounds about theſe Places.

Five or ſixe leagues without the Teſſell, lyeth the Broad-fourteens, lying from thence northeaſt with a ſmall tayle which lyeth about north from the Teſſell, and northweſt from the Flye, to the ſouthwards it runneth with the eaſt-ſide againſt Catwijck or Scheveling, but the weſt-ſide lyeth of a leaſt 11 or 12 leagues thwart of to Seawards from Nortwijck and Catwyck, it is a banck moſt of 14 fathom deep in ſome places ſomewhat more or leſſe. Betwixt it & the land it is againe 18 & 19 and to the northwardes 20 fathom deep. When you come over it about the Teſſell or the Flye, and come againe in 16 or 17 fathom towards the land, then you ſhall being to ſee the land.

There runneth of to the ſouthwards into the Sea from the coaſt of Holland three ſmall Banckes or ribbes, which are ſomewhat broad & ſhoale by the land, and run of ſharp and deepe to the end, the firſt the Fiſhermen call the Small-eight, and beginneth a little to the ſouthwards of Egmont upon the Sea: the ſecond the Uytterib thwart of Wyck upon the Sea: the third and ſouthermoſt the Hard, a little to the northwards of Santfoort.

The high ſteeples of Holland and weſt-Frieſland, as Egmont-within, wyck upon the Sea. Santfoort and other more, men may ſee before they can ſee the ſand-hills 5 leagues without the land, in 14 or 15 fathom, that is, upon the ſouth-end of the Broad-fourteenes, but Camperdownes, and the ſand-hills thwart of Haerlem, they may ſee before they can ſee ſome of the ſteeples. The ſteeples alongſt the coaſt are moſt of them flat, except the Beverwyck, Schevelingen and Santfoort.

Before the Maes and Goeree men may ſee the land in 14 and 15 fathom.

Courſes and Diſtances.

From Teſſell to the Maes, ſouth-ſouthweſt	24 leagues
From Teſſell to the Head, or the Strait between Callis and Dover, ſouthweſt ſomewhat ſoutherly	52 leagues
From Teſſell or Marsdiep to Callis Cliffe ſouthweſt and by ſouth	52 leag.
From Teſſell to the North-Forland ſ. w. ſomewhat weſtwardly	47 leag.
From Teſſell to Orfordneſſe weſt-ſouthweſt	37 leagues
From Teſſell to Yarmouth weſt, and weſt and by ſouth	34 leagues
From Teſſell to the Shield, or Cromer weſt	40 leagues
From Teſſell or Marsdiep to Flambroug-head w. n. w.	60 leagues
From the Marsdiep to Liet in Scotland northweſt and by weſt ſome what northerly	104 leagues
From the Marsdiep to New-caſtle w. n. w. ſomewhat northerly	83 leag.
From Teſſell to Boekeneſſe northweſt, and northweſt and by north ſomewhat weſterly	123 leagues
From the Marsdiep to Aberdine n. w. ſomewhat northerly	119 leagues
From the Marsdiep to the Liet of Bergen in Norway, north	110 leagues
From the Marsdiep to the north-end of Hitland, n. n. w.	165 leagues
And then you ſhal fall about 5 leagues to the eaſtwards of the land.	
From the Marsdiep to the Naze north and by eaſt	94 leagues
From the Maes or Goeree to Dover, ſouthweſt and by weſt ſomewhat weſterly	33 leagues
From the Maes to the North-Forland, w. ſ. w. ſomewhat weſterly	31 leag.
From the Maes to the Naze, weſt	31 leagues
From the Maes to Hitland, north-northweſt	180 leagues.

Heights.

The Marsdiep lyeth 53 degrees, ſayle out of the North-Sea, (being in that height) eaſt on, and you ſhall fall right with it.

The north-ſide of the Maes lyeth in 52 degrees.

How theſe Lands doe ſhew them ſelves at Sea.

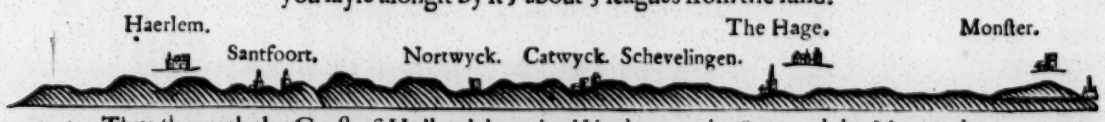


Thus appeareth the Iſland Teſſell, when it lyeth eaſt and by north from you.

Huyſdowne ſheweth it ſelfe thus, when it is eaſt ſoutheaſt from you.



Thus ſheweth the Coaſt of Holland betwixt Huyſdowne and Wyck upon the Sea, when you ſayle alongſt by it, about 3 leagues from the land.



Thus ſheweth the Coaſt of Holland, betwixt Wyck upon the Sea, and the Maes, when you ſayle alongſt by it about a league from the land.

Den Briel
t Lant van Vooren
Quack
Melsant
Duveland
Bommenee
t LANT
Ziericzee
Brouwershaven
Goeree
t Lant van Goeree
Oudorp
Volle
VAN
SCHOW
VEN.
Springer
Ooster hil
Roompot
Westerschouwen
Duyvelandt
Oosterschelde
Wielingen
Ter Veere
Zierickzee
Brouwers-haven
Goeree
Maes

De Cust van
ZEELAND,
Begrypende in sich de Zee gaten, als van de Wielingen, Ter Veere, Zierickzee, Brouwers-haven, Goeree en de Maes.
t'Amsterdam.
By Iacob Theuniſz op t'water inde Lootsman.

Duytſche mylen 15 in een graet

Spaenſche mylen 17½ in een graet

Eng: en Fra: mylen 20 in een graet

t Lant van Cats

Cats plat

Kotjeen

Oriſand

Weſtkerck

Slou

Armuyden

Ter Veer

Middelburg

Reiten

Oost Souburg

West-Souburg

Vliſſingen

Nolle

Breskens

Groede

VLAEN DE REN

W A L C H E R E N

Coukerke

Dieſshoek

Eadſand

S. Lambert

Naſſau

Oranje

Inne Stroom

Beekercke

Oost capel

Soutelande

Domburg

Buyens hercke

West capel

Riſſiens

Oost Gat

Stern Diep

De Put

De Weſt Put

Den Helder

Nieuwe Diep

Den Helder

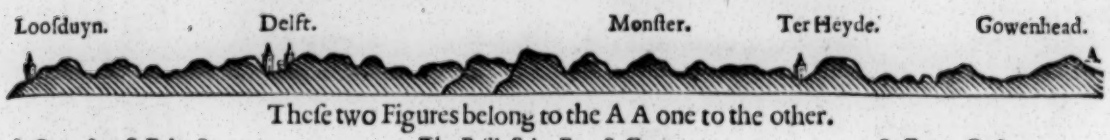
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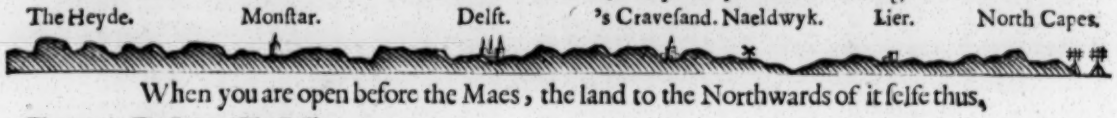
The Channells of Brewers - Haven.



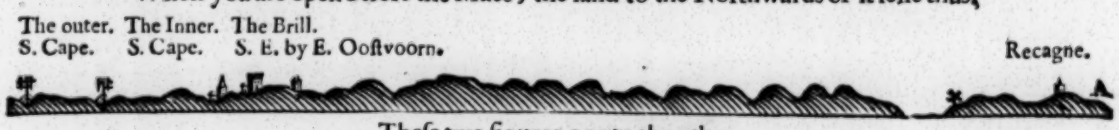
These two Figures belong to the A A one to the other.



When Gravesand is S. E. and by south from you, being a halfe league without the land; then the Coast of Holland to the northwards of the Maes sheweth it self, as is portrayed in the two figures here above.



When you are open before the Maes, the land to the Northwards of it selfe thus,



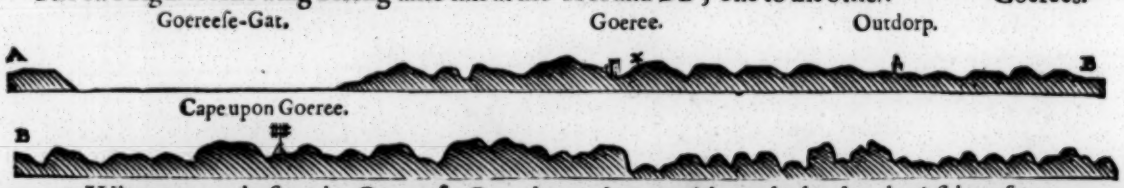
These two figures one to the other.



When you are upon before the Maes, being n. w. and by west from the Bril, then the land to the soudwards of the Maes sheweth it selfe, as is prefigured in the two Figures here above.



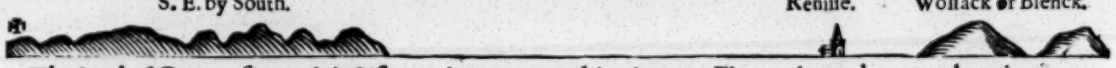
The two Figures following belong unto this at the A A and B B, one to the other.



When you are before the Goereese-Gat, about a league without the land on both sides of it sheweth, as is demonstrated in three figures here above.



These two Figures belong at the Crosses one to the other.



The land of Goeree sheweth it selfe, as is pourtrayed in the two Figures here above, when the cape and steeple come one to the other, and that you are a league and a halfe without the land.

The third Demonstration,

Which Unfoldeth

All the Channells betwixt the Maes and the Wielings, as that of Goeree, Brewers-Haven, Zierick-Zea, the Veer and the Whieling.

COncerning the Situation betweene the Maes & Goerees-Gat, wee have handled sufficiently in the discription of the River Maes. Betwixt the land of Goeree and Schowen there goe in also two channels, the northermost is called the Kevitsen, (which is onely for small ships) the southermost for great ships is called the Brewers-Havens Channell, betwixt them lyeth a great dry sand, called the Springer, which floweth not under, but with very high floods.

For to finde the Kevitsen, you must bring the steeple of Zierick-zee S. E. and by south or a little more southerly from you, and then you shall espy upon the land of Schowen, about the steeple of Zierickzee, a wood of trees, bring that and the foresayd steeple of Zierickzee one in the other, and runne so rigt in untill you come agaynst the sand, so shoaler so neare as you can, and then you runne farre enoug alongst to the westwards of the west-head. When you come within the west-head; against the sand on the south side, then goe in east alongst by the foresayd dry sand the Springer, at the end of the a foresayd dry sand shooteth of also a poynt under water, the which you must sound for: being past that, run then directly with Brewers-haven as is shewed in the Card. In this channel it is upon the shoalest 10 foot deep.

The Brewers - Haven.

BEfore the land of Schowen, thwart of the Brewers-haven channell, lye three bankes, the outermost, called the Breebank, lyet a kenning without the land, upon which it is 7 fathom deep, and againe within it, 19 fathom deep, upon the second nearer the shoare, it is 5 fathom deep, and againe within it 7 fathom deep; the third called the Ooster, lyeth close by the Land, and runneth into the eastwards, betwixt Schowen and the land of Goeree, upon it is no more then 6 foot water, when you wil sayle into the channel of Brewers-haven, you must goe about to the westwards of it.

Upon the west-end of Schowen stand two Capes, bring them one in the other, & runne so right in with them, until the steeple of the Renisse (which steeple is somewhat sharpe) come to the Blenck or Wolsick, that is, a high white sandhill, (which sheweth it selfe out in whitenesse high above all the other Sand-hills) then leave the Capes, and

Renisse. Wolsick.

and runne in by the marks of the Blencke and Reniſſe, untill that Outdorp, (a little white ſteeple upon the Land of Goeree) come to the ſteeple of Goeree, and ſo you ſhall goe in betwixt the Ooſter of the larboard ſide, and the Hill on the ſtarboard ſide, and alongſt a little to the ſouthwards of the outermoſt buy, untill you come within the Ooſter. When that Outdorp and Goeree are one in the other, then leave alſo the foreſayd markes of Reniſſe, & runne in right with Goeree, untill that you come by the ſecond buy; or (if there lye no buyes) untill that the Bommence come a little without the Oxetayle, that is a poynt of Schowe, lying out a little to the weſtwards of Brewers-haven, ſayle ſo rigt in untill you are paſt the Brewers-haven. This channell of Brewers-haven, is a broad and deepe channell, very convenient for great ſhips, he that muſt turn in or out to windewards, may runne alongſt a good wayes on both ſides, as well of the outermoſt as of the ſecond buy, but to the ſouthwards of them it is deepeſt, and the common fareway. The third buye is a buy with a tayle, and lyeth upon a poynt of a tayle, which of from the Ooſter, which you may not goe to the northwards of, untill it where very cloſe alongſt by it: all alongſt by the ſtrand of Schowen, it is deepe & ſteepe, you may runne cloſe by it from the outermoſt buy unto Brewers-haven; there is nothing that can hurt you, the ſhoaleſt of this Channell is 18 or 19 foot, at leaſt a league without the land in the comming in betwixt the Ooſter and the Hill. Further inwards it is 4, 5, 6 and 7; and at ſome places 10 and 11 fathom, as it is ſhewed in the Card by the numbers of Feet, and at low water.

The Keel, the New-deep, the Velt, and the Room-pot.

YOu may run into Zierickzee throug divers channells, throug the Keel, the Newdeep, the Velt, & the Room-pot. For to ſayle throug the Keel, then run in as is beforeſayd of the channell of Brewers-haven, firſt in by the marcks of the Blench and Reniſſe, ſo long untill that Ter-Veer come to the weſtermoſt poynt of Schowen, called the Hoot, keepe them one in the other, or to the other, & run ſo in untill you come by the ſtrand, & then forth by it, & you ſhall find ſo in the Keel at the ſhoaleſt 18 and 19 foot, and comming againſt the point of the Hoot, 4 & 5 fathom. Betwixt the Hoot & the Newſand (which falleth at the eaſt-end in ſome places dry) run al alongſt by the land of Schowen, untill you come thwart of the ſouthermoſt Cape of Schowen, edge then ſomewhat of from the ſhoare toward the Banjard, for to avoyd a Share which lyeth of from Schowen, which you might ſayle within when you come out of the Sea. There lyeth a buy upon the poynt, whereby it is eaſy to be known: being paſt that, run all alongſt by the ſhoare, untill you come to Zierikzea: ſomewhat within the buy, upon the poynt of the ſhoare, there is lately layd another little buy for thoſe that wil ſayle that wayes out, for that they may not ſayle upon the eaſt-ſide of the foreſayd ſhoare.

The New-deep. For to ſayle in at the New-deepe, you muſt looke out for two ſtone fire-beakons, ſtanding a little to the ſouthwards of the foreſayd Carpes of the Channell of Brewers-haven, bring the innermoſt a hand-ſpikes length to the ſouthwards of the outermoſt, and runne then right in with them, and then you ſhall runne in betwixt the Hill and the Newſand in 16, 17 and 19 foot, goe in alongſt by the foreſayd markes, untill that you come by the ſtrand, and then you come into the Keele. If you bring the fire-beakons one in the other, and ſayle ſo right in, you ſhall then runne over the tayle of the Hill in 11 or 12 foot. The Hill is a land ſomewhat flat, which men may come neare to the ſouth-ſide by their lead, but the New-ſand is very ſteep, and the Sea breaketh very much upon it. When as you come in by the ſtrand into the Keel, then run in alongſt by the ſtrand, as is before ſayd in the Deſcription of the Keel.

The Velt. For to ſayle in at the Velt, you muſt obſerve theſe marks here under deſcribed: allmoſt upon the ſouthermoſt-end of Schowen ſtandeth a Tower alone in the field, with a Cape upon it, called Weſt-Schowen, bring that Tower a capſtane barres length to the ſouthwards of the foreſaid ſouthermoſt-cape of Weſt-ſchowen, & runne ſo right in, & then you ſhal runne throug betwixt the New-ſand & the Banjard, & ſhall finde upon the ſhoales (thwart of the outermoſt-poynt of the New-ſand) 12 & 14 foot, being paſt that, there will be againe 15, 16 and 18 foot, and by the ſtrand 20 foot deep. When you come in by the ſtrand, runne all alongſt by it untill you come even to Zierikzee, as here before is ſayd of the Keel and New-deepe. When you runne in at this channel, you muſt take very good heed of the Banjard, which is very ſteepe upon the north-ſide; cloſe to it, there is 3, 4 and 5 fathom, but thwart of the foreſayd ſtrand which lyet of from Schowen, 6 & 7 fathom deep. The New-ſand is indifferent flat on the ſouth-ſide, that you may borrow of it by your lead.

The Veer-gat.

FOr to ſayle in the Veer-gat (comming from the northwards) you muſt keepe Weſt-cappell not to the weſtwards of ſouth from you, & then you cannot come to neere the Banjard: but if you bring Weſt-cappel to the weſtwards of the ſouth from you, you ſhould lightly ſayle upon the Banjaert, runne ſo rigt with Weſt-cappell, untill that Middelbroug come over Eaſt-cappell, then you are to the end of the Banjaert, ſayle then right with Eaſt-cappell and Middelbroug, untill that Cortgeen come throug or great capſtane barres length to the ſouthwards of Weſt-kercke, they are two Towers ſtanding in the ſuncken land, & ſhall bee then about eaſt ſoutheaſt from you, keepe theſe Towers ſo ſtanding, and run in ſo right with them, and you ſhall runne in ſight of the firſt buy of the Veer-gat. In the Veer-gat lye three Buyes with two Bottomes, of faſhion like great Hogſheads which you muſt leave all on the ſtarboard ſide. Before you come to the firſt buye, you ſhall ſaile by another buye on the larboard ſide, lying upon the poynt of the Polle, which is a poynt of the Banjaert, that is, a Peare buye, of faſhion like all other Sea buyes that lye in the Maſe or elſwere. The foreſayd firſt buy in the Veer-gat lyeth in three fathom and a halfe. From the firſt to the ſecond and third buye, the courſe is ſoutheaſt and by eaſt, or ſomewhat more ſoutherly, but you may eaſily ſee from the one to the other. The ſecond and third buyes lye in two fathom, each upon a poynt of a plate, called the Mayde. Over againſt the third buye lyeth a ſhoale called the Unreſt, which lyet with a long ſharpe point towards the third buye, ſo that it is not there very broad betwixt them, therefore you muſt runne cloſe alongſt to the northwards of the buye: betwixt the buy & the foreſayd poynt of the Unreſt, it is not deeper then 12 and 13 foote, but thwart of the firſt and ſecond buye, it is broad & deepe enoug. Being paſt the third buye, ſayle then right to Ter-Veer. Over againſt Ter-Veer lyeth a plate, called the Scotſman, which you hale onely to avoyd.

Marke of the Banjaert. The Polle. Mayde. Unreſt.

If you will goe in at the Room-pot to Zierick-zee, and that you are come betwixt the foreſayd Peare buye upon the poynt of the Polle, and the firſt or outermoſt buy of the Veer-gat, then commeth Domburg to the Hoot, which is a white ſand-hill upon Walcheren, allmoſt of faſhion like the Woolſackes upon the land of Schowen: keepe them one in the other, and you ſhall runne alongſt by two buyes more, which ſhall lye on the larboard ſide alonghſt by the Polle, & you ſhall ſee one buye with a tayle lying upon the weſt-poynt of the Wool-plate, over againſt the third buye of the Polle: betwixt theſe two buyes you muſt run throug, leaving that with the tayle on the ſtarboard ſide, and runne about by it to the eaſtwards. There lye alſo two buyes with tayles, (beſides the foreſayd) upon the Wool-plate, you may eaſily ſee from one to the other, theſe you muſt leave on the ſtarboard ſide, and runne alongſt to the northwards of them, about eaſt ſoutheaſt on, ſo long untill the ſteeple of Koukercke (upon Schowen) come even without the poynt of Schowen, runne then in right with that poynt, and about by it, & then alongſt by the ſhoare unto Zierickzee. When as you runne towards the poynt of Schowen, then you ſayle through betwixt two buyes more, the one lyingh on the ſtarboard ſide, upon the eaſtermoſt-poynt of the Banjart, or Hoog-plate, and the other with a tayle on the ſtarboard ſide, upon the poynt of another plate, called Poolvoet, lying betwixt the land of Schowen and Oreſand.

For ſayl at the Room-pot. Wool-plate.

All

Al the buyes with tailes men muſt leave (in ſailing in) on the ſtarboard-ſide, & thoſe without tailes on the larboard-ſide.

The Fiſhermen run (by day) moſt about to the ſoudwards of the Poolvoet-plate, and leave the foreſaid buye with the taile, then on the larboard-ſide; that plate is ſomewhat flat, that men may borrow of it by theyr lead, but they muſt ſound quick: but by nigt they run by Schowen cloſe alongſt by the ſhoare, which is exceeding ſteepe and needle to.

The Channel betwixt the Iſland Walcheren and Flanders, hath divers deepes, and channells, where men may ſayle in and out throug with a great ſhippes, as the Bot-kil, the Doorloye, the Splete, and the Wieling. It is commonly called after one of the chiefeſt of the ſame, with the name of the Wielings. The greateſt ſhoales, betwixt which theſe foreſayd channells doe runue through are: The Raſſes, the Raen, the Engliſh Polle, and the Inner-banck. The Raſſes lye alongſt the weſt-ſide of Walcheren: The Raen to the weſtwards of it: The Engliſh Polle betwixt them and the coaſt of Flandres, lying of to the weſtwards with a long ſmal ribb, unto thwart of Ooſtend. The Inner-bank lyeth betwixt the eaſt-end of the Engliſh Polle and Caſand, which is alſo called the French Pol or the Ript.

The Raſſes. The Raen. The Engliſh Poll. The French Poll.

The Bot-Kill.

FOR to ſaile out at the Bot-kill, you muſt run from Fluſhing within two Cables lengths alongſt by the ſhoare, throug betwixt the land & the Geer & the Raſſe, the ſhoare is very ſtepe, ſo that men may come cloſe by it with great ſhippes without any danger, the Raſſes are flat on the eaſt or the inner-ſide towards the land. To the eaſtwards, or to the ſouthwardes of Souteland in the fareway it is 5 and 6 fathom deepe, but to the northwardes, or to the weſtwards it is deeper, and thwart of Weſt-Cappel 8 and 9 fathom. When the Church of Weſt-cappel (which hath a flat ſteeple) commeth over the mil, thwart of thath runneth channel throug betwixt the north & eaſt Raſſes w. ſ. w. into the Sea where remaineth at low water no leſſe then two fathom water, keepe Weſt-cappel and the foreſaid mill one in the other, & runne out ſo by them. When Buyes Church commeth over the foreſayd mill of Weſt-cappel, then keepe them one in the other, & you ſhall runne then right out at the Bot-kill throug betwixt the North-Raſſes on the larboard-ſide, and a ſand called Calloo on the ſtarboard-ſide.

Markes of the Botkill. In the Bot-kil is not leſſe then 4 fathom and a halfe depth, but upon both the Raſſes remaineth at low water, no more then 2 foot & a halfe, & upon Calloo 3 or 4 fathom.

Quernes. To the northwards of the ſand Calloo lyeth yet a plate called the Quernes, lying northwards almoſt until thwart of Domburg, betwixt them both is a channell of 4 or 5 fathom depth, called the Eaſter-gat; For to ſayle out there, or to finde it comming in out of the Sea, you muſt bring Weſt-cappel to the northermoſt-head, which is a head very good to be knowne, and run out in or thereby. Betwixt the Quernes & the land goeth out yet a Land-deep of 3 fathom & a half. For to finde that comming in out of the Sea, you muſt runne to the ſhoare, thwart of Domburgh (which is a ſharpe ſteeple) into 3 fathom, or 2 fathom & a halfe, and keepe de ſounding of the ſhoare ſo neare as you pleaſe, and runne in ſo alongſt by the heades, until you be come within. When you come in any of theſe channells, and are come ſo farre to the eaſtwards, as betwixt Buyens Church and Soutland, & that you muſt turne to windwards with an eaſterly wind, then you may ſayl throug betwixt the Eaſter-Raſſes, and the plate to the weſtwards of it, called the Geete, and ſo come out in the broad channel into the Dorloy and Splete, and run ſo about to the ſouthwards of the Geer unto Fluſhing.

Land-Deep.

About 2 leagues without the land of Walcheren lyeth a long ſmall bank, lying ſ. w. & n. e. called the Stonebanck, upon the middeſt where of there is no more then 2 fathom, and upon the north-end of it 3 fathom water. He that will ſayle in or out at the Bot-kill, or the channells to the north of it, the Eaſter-gat or Land-deep, muſt ſayle about either to the northwards or to the ſouthwards of that Stonebank: When Middleburg commeth over Domburg, then are you thwart of this Stone-banck, but if you bring Middleburg half wayes betwixt Domburg and Eaſt-cappell, and ſo ſayl to the land, then you runne along to the northwards of it. Or els if you bring Weſt-cappel e. ſ. e. from you, in a black valley of the ſand-hills, and ſayle ſo right in, then you runne alongſt to the weſtwards or the ſouthwards of it. Within the Stone-banck it is againe 8 or 9 & at ſome places 10 fathom deep. Upon the foreſayd marcks & courſe, to witt, Weſt-cappel e. ſ. e. from you in the black valley, you may ſaile rigt in at the Bot-kil: when the Eaſt-cappel commeth then ſomewhat throug Domburg or to the eaſtwardes of it, then you ſhall get deeper water, goe then towards the ſhoare, and ſo alongſt by it, as is beforeſaid. A little from the ſouthweſt-end of the Stone-banck lyeth yet another, but it is not long, called the Oyſter-banck, upon it remainet at low water about 4 fathom water.

Markes of the Stone-banck.

Oyſter bancke.

The Doorloy.

FOR to ſaile from Fluſhing out at the Doorloy with ſhips that draw much water, you muſt ſet ſaile when the water is floweth an houre or two, for to come with halfe flood, or againſt the higheſt water to the ſhoales, goe from Fluſhing firſt alongſt by the ſhoare, and then w. n. w. until that Weſt-cappel come within two ſhippes length to the point of the Sand-hil, to witt, that Weſt-cappel ſtand ſo much within the weſt-point of the Sand-hils, bring that alſo not further out, not neere to the point of the Sand-hils, for els you ſhould ſayle upon the Raen. When that Weſt-cappel ſtandeth ſo, & Saint Anne (a flat ſteeple in Flanders to the weſtwards of Sluce) ſtandeth almongſt the eaſt Sand-hils of Caſand, then goe n. w. and by weſt out at the Doorloy. When that S. Anne commeth then to the weſtwards of that foreſaid Sand-hils, then commeth the Caſtle of Sluce, under or behinde that Sand-hil, keep that under, or rigt to the eaſt-ſide of the foreſaid Sand-hils, and then goe out n. w & by weſt, and you ſhal goe cleare of the Raen and the Raſſes. If you bring Weſt-cappel without the Sand-hils before that S. Anne come without the foreſaid Sand-hils of Caſand, then you ſhal be to farre to the northwards, and to neer the Raſſes. Or if you bring Saint Anne without the Sand-hil of Caſand, before Weſt-cappel come to the end of the Sand-hils, then you ſhal be to farre to the ſouthwards, and ſhal come againſt the Raen, but when you bring Weſt-cappel to the poynt of the Sand-hil, and S. Annes without the Sand-hils of Caſand one as ſone as the other, then you are amidſt the channel of the Doorloy rigt in the fareway.

For to find the Doorloy, comming in out of the Sea.

For to find the Doorloy comming in out of the Sea, you muſt run to the Raen by the lead, until that Weſt-cappel come within a maſts length neere to the Sconce, and ſayle ſo rigt in, or take the ſounding of the Raen, & run alongſt by it, until that S. Anne come to the foreſayd eaſt Sand-hil of Caſand, then goe in alongſt ſ. e. & by eaſt, and you ſhal ſoon be over the ſhoaleſt, and find deeper water, but you muſt reckon wel you tydes, for the flood falleth in to the Doorloy firſt ſouth (as alſo the after ebbe) afterwards ſ. ſ. e. and at leaſt to the ſouthwards. Therefore if you wil goe in at the Doorloy with a fore-flood, you muſt goe at e. ſ. e. or els (if you ſhould goe in upon your direct courſe) you ſhould lightly be carried againſt the Raen. Comming then out of the Sea alongſt by the Raen, until that S. Anne be hidden amongſt the Sand-hils of Caſand, then goe on e. ſ. e. until that Weſt-cappel come within the poynt of the Sand-hils, and then rund boldly rigt on with Fluſhing. In darke weather men may ſound alongſt by the Raſſes; when that you keep the Caſtle of Sluce to the eaſtwards of the foreſayd Sand-hil upon Caſand, then you cannot take hurt of the Raen, but when the Church of Sluce ſtandeth to the weſt-ſide of the foreſaid ſand-hils, then you are thwart of the ſhoaleſt of the Raen.

The Spleete.

FOR to ſayle from Fluſhing out at the Spleete, you muſt goe on firſt (as is beforeſayd) w. n. w. until that Weſt-Cappel come almoſt to the poynt of the Sand-hills, but not without it, or that the ſteeple of Middlebrough

come to the Inner ſand-hill, then goe w. ſ. weſt, and then you run out at the Splete, which is more then a great halfe league broad, and at low water upon the ſhoaleſt 4 fathom and a halfe deepe. Betwixt Southland and Dyſhoeck lyeth a high ſand-hill, which is at the eaſt end ſomewhat ſteepe, called the Doorn-hill, to the eaſtwards of it lyeth another ſand-hill, which is ſomewhat long, not altogether ſo hig as the Doorne-hill, with a clift or little dale in it, which doth (as it were) divide the long ſand-hill in two ſand-hills, the ſouthermoſt is called the Inner ſand-hill, becauſe that to the ſouthwards of it there are no more hig ſand-hils. When that the ſteeple of Middlebroug commeth over that Inner ſand-hil, or in that foreſayd clift, and keepe that over it or in it, then you runne out at the Splete, & can take no hurt neither of the Poll nor the Raen.

Doorn-hill.

Inner-ſandhil.

The Engliſh Poll is ſteepe, buth with eaſterly windes men may borrow of it by the lead. The Raen is flat on the Inner ſide as well as on the out ſide, ſo that men may ſound out alongſt by it all the Splete when you cannot have ſigt of the foreſayd markes in dark weather, and it is ſo broad, that men have an halfe houres worke for to ſayle thwart over it, but the Engliſh Poll is ſo narrow, that men may runne over it with 4 or 5 coaſts of the lead. When that Aerdenburgh commeth without the foreſayd ſand hills of Caſand, then you are paſt the drye Raen, but it lyeth yet out to the weſtwards with a great flat, ſo farre to the weſtwards, untill Bridges commeth to the eaſtwards of Blanckenbroug in the Gallow ſherds, which are high ſandhils to the eaſtwards of Blanckenbrough, where in times paſt was wont a Gallowes to ſtandt, then you are paſt all the ſhoales, and may goe your courſe where you deſire. Blankenbroug hat a flat ſteeple ſomewhat higher (but not ſo thick) as Liſwegen.

Engliſh Poll. The Raen.

Markes of the Raen.

From the end of the Engliſh Poll lyeth a long ribbe (about a ſhot of a caſt peece broad) to the weſtwards, untill paſt Ooſtend, called the Ript, it is hard ſand, and good anchot ground. When Blanckenbrough ſtandeth ſoutheaſt and by eaſt from you, there is upon the Ript at low water 6 fathom deepe, more to the eaſtwards towardes the Engliſh Poll it is ſhoaler, but the farther to the weſtwards the deeper unto the outerbanck thwart of Ooſtend. A ſhot of a caſt peece to the northwards of that Ript it is deeper, and ſoft ground. Alſo when you come towards the ſouth or ſouth ſoutheaſt, a ſhot of a caſt peece over the Ript, it will be preſently a halfe fathom deeper, and ſoft ground, that is, then the other channel of the Wielinge. Therefore when you come out of the ſea, & will ſayle in at the Splete, edge to the coaſt of Flanders, when you are (by your reckoning) paſt Ooſtend, and borrow to it by your lead, untill that you get hard ground, and ſhoaler water, that is then for certaine that foreſayd Ript: having ſound that in 6, 7 or 8 fathom, according as you ſhall be to the eaſtwards or the weſtwards, then edge of againe to the northwards into the ſea, untill it begin to ſhoale, and be hard ground; keep ſo the ſounding of the Ript untill that you find again deeper water and ſoft ground, runne in then caſt northeaſt, and edge now and then to the ſouthwards towards the north-ſide of the foreſayd Ript, untill that Bridges commeth to Liſwegen (beingh a flat and very thick ſteeple) or that Blanckenbrough ſtand ſouth from you, then you come thwart of the poynt of the Raen into the Splete. Then bring the ſteeple of Middlebrough over the foreſayd Inner ſand-hill, betwixt Soutland and Diſhoeck, and run in right with it, eaſt northeaſt on, untill that the caſtle of Sluce come to the eaſtwards of the foreſayd eaſt ſand-hils of Caſand, ſayle then right on with Fluſhing, and ſo you ſhall goe cleare both of the Raen and the Pols. If it ſhould happen in darke or miſty weather, that you cannot ſee Middlebrough then run in by your lead alonghſt by the north ſide of the Ript e. n. e. until that you find ſhoaling & hard ground of the banck, and ſo you ſhall run in betwixt the Raen and the banck. The weſt end of the Raen is flat, which you may ſound very well. In the channell betwixt the banck, or Engliſh Poll, and the Raen, it is ſoft ground on both ſides, as well towards the Raen, as towards the banck, it doth begin to ſhoale, and to be hard ground. When Heyſt, that is, a high ſharp ſteeple commeth to the fire-beakon, thwart of that is the banck, or Engliſh Poll at the ſhoaleſt, to the eaſt wards of that, the banck waxeth deeper; Being come paſt the ſhoaleſt, if you edge toward the banck, you ſhall finde deeper water, and may run over there at a halfe flood with 18 foot, but it is not good to doe it, for not to ſayl upon the French Poll, but keepe all alongſt the ſounding and hard ground of the banck, and ſhape your courſe a little more eaſterly for to avoyd the Raſſes which lye thwart of Southland & are ſteepe. When you are come ſomewhat further in, go then caſt on towards Fluſhing, & you ſhall not come neare any ſhoales. Thwart throug the Raen goeth a Slenk where remaineth at low water, not leſſe then 2 fathom and a halfe water, for to finde it comming in out of the ſea, you muſt bring Aerdenbrough a little without the poynt of the ſand-hils of Caſand, or Weſt-chappel in Flanders a little to the eaſtwards of Knock, ſayle then right with it, untill that you get deeper water, or that the ſteeple of Middlebroug come over the Inner ſand-hill, and then in alongſt with it. Weſt-chappel in Flanders is a ſhort flat little ſteeple, with a little ſhort blunt ſpire, or cap upon it, but Knock is a ſharp ſteeple not ſo high as Heyſt.

Slenck through the Raen.

The Wielinge and Inner-wielinge.

For to ſayle in the Wielinge comming in out of the ſea you muſt run to the coaſt of Flanders, (when you are paſt Ooſtend) until you come in 5 fathom. Thwart of Blankenbroug there was wont a few yeares paſt, to lye a blancke or ſhare of from the ſhoare, which men might ſayle with in, comming from the weſtwards: now there is nothingh but a little flat, and Dobbelſand is alſo altogether cleane gone. Or elſe you muſt looke-out for Liſwegen a flat ſteeple, and the thickeſt thereabouts. When the ſteeples of Bridges, (being called the Bruggelingen) ſtand a cables length to the weſtwards of Liſwegen, then are you yet to the weſtwards of all the ſands, polle, and banckes, keepe theſe ſteeples ſtanding and runne on to the coaſt, until you come over the foreſayd Ript, and that you find again ſoft ground & more depth, until you come in 5 fathom, go then n.e. & n.e. & by e. with a Flood, or n.e. & n. eaſt, & by north with an ebbe (reckon well your tyde, which runneth there moſt e. ſ. e. ſomewhat ſoutherly, & w. n. w. ſomewhat northerly, and the tyde runneth but a little houre alongſt the land) keep the ſteeple Wenduynen one or two ſhips lengts without the Sconce of Blanckenbrough, ſo long as you can ſee them, and ſtil in 5 fathom; when as Heyſt commeth then to Bridges, and Weſtcapel to Knock, then are you right in the fareway of the Wieling, the nearer that you are to the bancke of the Engliſh Poll, the deeper water you ſhall finde, except that you have the ſhoaling of the banck it ſelfe. Bridges muſt come firſt to Heyſt, or elſe you ſhould be to farr to ſeawards, or to neare the Engliſh Poll; with a foreflood you may bring them bot at once together, but not with a fore ebbe. If you get then ſhoaling, that is, of the Engliſh Poll, goe from thence alongſt the ſame courſe, through betwixt the Engliſh Poll and the French Poll, or Innerbanck, that is a hard ſand and ſteep, but the Engliſh Poll is thereabouts Flat, which you may ſound. When as that the caſtle of Sluce commeth to Saint Lambert (a high flat ſteeple upon Caſand, to the northwards or to the eaſtwards of the Sluce) then you are paſt the French Poll, goe then eaſt on right with Fluſhing, or elſe obſerve theſe marckes following: Liſwegen muſt not come within Heyſt, before the Caſtle of Sluce come to the eaſt ſand-hill of Caſand, but remain without it, or elſe you ſhould ſayle on againſt the Innerbanck, when as that the Caſtle commeth to the ſand-hill, goe then boldly northeaſt and by eaſt and eaſt northeaſt, for to avoyd the French Poll, untill that the ſteeple of Fluſhing come to the northwards of the Priſon-gate, then you get deeper water: goe then on eaſt, and eaſt and by ſouth right with Fluſhing. There remaineth in the Wieling, as alſo in the inner Wieling at the loweſt water, not leſſe then 4 fathom and a halfe water.

The Inner-Wieling lyeth in through betwixt the inner-banck, or French Poll, and Caſand. When you come from the weſtwards into the Wieling, and are come ſo farr, that Weſtchappel come to Knock, and will go in at the Inner-Wieling, then goe from thence eaſt and by ſouth on

and

Duytsche mylen 15 in een graet

Spaensche mylen 17½ in een graet

Eng. en Fra. mylen 20 in een graet

F L A N D

Brugge

Sluys

t'Slyc

S. Anna

Cadsant

Westcapel

Klooster ter Doest

Liefvrege

Blanckenberg

Wenduine

Oostende

Oudenburg

Albertus Schans

Middelkerck

Westende

Nieuport

Breskens

S. Lambert

Vlissingen

Middelburch

WALCHE REN

De Kuit

Tripi

Ackart

Weele

Schoonevelt

De Put

Banjaert

De West Dut

Den Mekelag

Oost Dut

Scheurlag

De Cust van

VLAENDEREN.

Beginnende vande Wielingen tot aende Hoofden; met alle haer sanden en droogten.

t Amsterdam.

By Iacob Theunisz. op 't water in Lootsman.

R J A

Winoxbergen

Cassel

Spykere

Vuerne

Bocbergh

Groot Sinten

S. Joos

Sout Kote

Duynkercken

Clein Sinten

Loven

Nieuport

Grevelingen

Oye

Wallamme

Ambleteuse

Cales

Braeck

Killen noorder Gat

Swartenes

Brecbanc

Polder

t Clif

The Falls

The Gulls

Sand head

Kingsdowne

Walmer Castle

Deale Castle

ENG-

Deale Church

Sandowne Castle

LAND.

Sandwich

Brake

Ruynes

North Foreland

Island of Thanet.

Margate

Cliffend

Burchenton

and you ſhall eſpy the buy upon the poynt of the Paerdmarck (that is, a ſand that ſhooteth of from the eaſt-poynt of Sluce haven, & is very ſteep) leave that buy on the ſtarboard ſide, and keepe S. Lamberts ſteeple even without the ſouth-ſand-hill of Caſand or Sluce haven, & goe on north-eaſt, or ſomewhat more northerly alongſt by the ſhoare, for to avoyd the Krakeſand, when as then the Caſtle of Sluce and S. Lamberts ſteeple come one in the other, then goe on eaſt right with Fluſhingh.

Krake-ſand.

Flanders is a Land full of ſand-hills & Hommoks, with many ſteeples alongſt the Coaſt, lying from the Haven of Sluce unto Callice, moſt w. ſ. w. & e. n. e. The firſt ſteeple to the weſtwards of Sluce is S. Anne a flat ſteeple, & then Weſt-cappell a little ſhort flat ſteeple, with a blunt Cap upon it. Heyſt to the weſtwards of them is a longh ſharpe ſteeple higher then Knock. Betwixt Heyſt and Blanckenbrough, lyeth Liſwegen ſomewhat within the land, that is a flat ſteeple, & the thickeſt of all the ſteeples there abouts. Blanckenbrough is alſo a flat ſteeple higher then Liſwegen, but not ſo thick. Within the land from Blanckenbrough ſtandeth Bridges, two thick ſharp ſteeples upon one Church to the weſtwards of Blanckenbrough a great halfe league lyeth Wenduynen a ſharp ſteeple.

Of the Tydes and Courſes of the Streames.

Before Brewers-haven, a ſ. ſ. w. and n. e. Moone maketh high water.
At the Channell of Brewers-haven a ſouth and by weſt Moone.
At Ter-Veer a ſouth-ſouthweſt and north-northeaſt Moone.
In the Veer-gat a ſouth and north Moone.

It is not good to runne in at Veer-gat, eſpecially with a ſoutherly or ſouthweſt wind, before that the flood be halfe ſpent, for the after-ebbe, and the fore-flood fall thwart over the Banjaert hard in at the Roompot, towards the land of Schowen, but when the flood is halfe ſpent, then it falleth right in at the Veer-gat. When the Moone is ſoutheaſt, or northweſt, then the water is there already two third parts flowen.

Like as it is here before ſayd of the Maſe & the Goerees-gat, ſo alſo here before the channells of Brewers-Haven and Ter-Veer, the flood runneth about with the Sunne, ſo that after-flood falleth in the channells, and then afterwards turneth about to the ſouthwards, and becommeth a runningh ebbe, but the after-ebbs fall right out at the Channells thwart into the Sea, and then with the foore-flood about againe to the northwards.

Before the Wielings a ſouth and by weſt & a ſouthweſt Moon maketh the higheſt water.

At Fuſhing and Ramekens a ſouth-ſouthweſt Moone.

At Weſt-chappell on the land of Walcheren, a ſouth and north Moone maketh high water. When the water is a halfe houre fallen, then the tyde begin neth to fall out there, and when it is flowen a halfe houre, it begin eth to fall in: but before the Brokill it beginneth to go there firſt an houre before the loweſt water, but it falleth long at Sea. In the Splete, and over the ſhoals lying there abouts, the tyde turneth about againſt the Sunne, and at leaſt falleth in at the channells. A ſouth and north Moon maketh there the higheſt water. The fore-flood falleth over the ſhoals there towards the land. When the Moone is about eaſt ſoutheaſt, or that te water bee about two houres flowen, then it beginneth to turne towards the ſouth, firſt ſouth-ſouthweſt, and then paſt the ſouth towards the eaſt, untill that the Moone be ſouth-ſoutheaſt, and then the flood falleth to the eaſtwards. When Blanckenbrough ſtandeth about ſoutheaſt and by eaſt from you, from thence to the eaſtwards, the tyde turneth about againſt the Sun, but from thence to the weſtwards, you ſhall not finde the tydes to turne about.

Againſt Zeeland in the fareway a third part of the flood falleth towards the land, and afterwards eaſt and by north. Men may ſee Zeeland from the poope in 16 fathom.

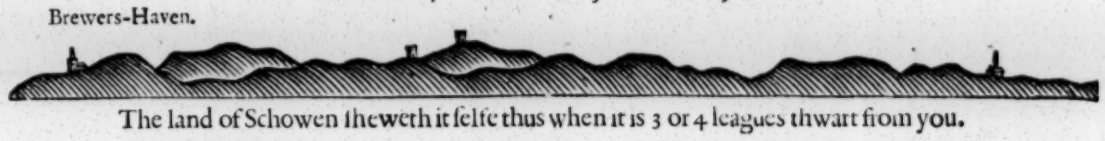
Courſes and Diſtances.

From Fluſhing to Blanckenbrough neareſt w. ſ. w.	9 leagues
From Blanckenbrough to Ooſtend, ſouthweſt and by weſt	2 leagues
From Fluſhing to the North-Forland, weſt ſomewhat ſoutherly	25 leagues
From the Wielings to Dover weſt and by ſouth	26 leagues
From the Wielings to Lay-ſtaffe or Yarmouth, northweſt	32 leagues

Heights.

Fluſhingh, Ramekens, and the South-Coaſt of Walcheren lye neare in 51 degrees and a halfe.

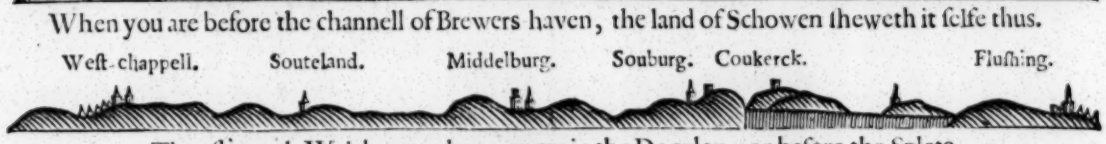
How theſe Lands doe ſhew them ſelves at Sea.



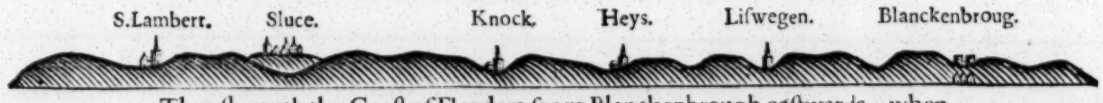
The land of Schowen ſheweth it ſelfe thus when it is 3 or 4 leagues thwart from you.



When you are before the channell of Brewers haven, the land of Schowen ſheweth it ſelfe thus.



Thus ſheweth Walcheren when you are in the Doorloy, or before the Splete.



Thus ſheweth the Coaſt of Flanders from Blanckenbrough eaſtwards, when you ſayle in or out at the Wielings.

The fourth Demonſtration,

Which Unfoldeth

The Coaſt of Flanders, from the Wielings to the Heads, about Callice, together with the Coaſt of Engeland, from Dover to the Nort-Forland.

BEtwixt Wenduynen and Blanckenbroug ſtandeth another little ſteeple, called John Davids ſteeple. Ooſtend lyeth a great league to the weſtwards of Wackerhout. A halfe league to the weſtwards of Ooſtend, lyeth Saint Catelyn, and a league to the weſtwards of it is Midlekerck, being a high thick flat ſteeple. From Middlekerck to New-port it is 2 leagues, there is a flat ſteeple with a little ſharpe ſteeple. A little to the eaſtwards of New-port lyeth our Lady of Lombardy, a high flat ſteeple.

From New-port to Broers it is two leagues, and from Broers to Dunkercke 3 leagues. The Southkoten is a league to the eaſtwards of Dunkerck. Dunkerck hath a high flat ſteeple, with a little ſharpe ſteeple. From Dunkerck to Graveling are 3 leagues, betwixt them ſtand theſe ſteeples, firſt little Sinten a little ſharp ſteeple, great Sinten a thick flat ſteeple, Mardycke a thicke flat ſteeple, and Saint Georges a high ſharpe ſteeple, Graveling hath no ſteeples, but there ſtand two mills, one on the Eaſter-gate, and the other on the weſt-end of the Towne. From Graveling to Callice are 3 leagues. Callice hath many ſharpe ſteeples, where of one is higer then all the reſt, & betwixt both lye theſe villages moſt without ſteeples. Firſt Hogenpryſe and Daſen, two flatt ſteeples; more Valdam a flatt Church with

a little spire upon the middest of it, that is alle the knowledge of Flanders. The Coast of Flanders betwixt Calice and Blanckenbroug, is 24 leagues long, or as some say, 21 leagues, and Blanckenbroug from Flushing 9 leagues. So that Flushing from Callice, at the least 30 leagues, or as some say 33 leagues at the most.

The which is here sayd of the steeples and league alongst the coast of Flanders, is very serviceable and needful as wel for that which is before described of the Wielings, as also for the sayling into the haven of Flanders, but especially for the knowledge of the Flemish bancks.

Oostent. For to saile into Oostend, you must run close to the eastwards of the Towne into the Haven, called the Gueule on the east-poynt of the Haven lyeth a Head, where upon standeth a beakon, you must run close in by that Head, there it is deepest, from the west-side to witt towards the Towne, shooteth of a little flat, where of you must avoid that side a ships length or two, at low water and a common tyde remaineth in this Havens-mouth 6 foot, and at hig water there is 22 foot water. A little within the Haven you may anchor where you wil, & at low water you may lye there with a great Ship a Float.

For to sail into New-port. New-port is a Tyde-haven, which falleth altogether dry at low water, and at hig water and a common tyde there is 13 foot water, close before the Havens-mouth is a banck, which lyeth from the eastwards of the Haven of New-port over to the westwards, thwart before the Havens-mouth, and at halfe flood lyeth dry, and at hig water there commeth no more upon it then 8 foot water.

He that wil goe into New-port, must goe in from the westwards betwixt the foresayd banck and the land, & sayle unto the southwards of the bank so long until that the innermost beakon come even throug, or to the eastwards of the outermost, and then run in so rigt by them, and in alongst amidst the channel betwixt the Heads. Betwixt the bank & the land it is on both sides flat rising ground, so that you may sound the shoares on both sides, but on the north-side the bank is somewhat steep, it is 3 fathom deep close alongst by it. Within the Havens-mouth it is set on both sides of the deep with beakons, where you must run throug betwixt, until you come before the Towne, which lyeth about a Canon-shot from the Sea-side. There is fire in the nigt upon the 2 great beakons, out not longer the from half flood to half eb.

From New-port to Dunkercke alongst by the shoare throug within the Banckes, it is cleane without any foule ground or Banks, and at low water 15 foot deep, the neerer the shoare the deeper. Thwart of the Closter Ten-duynen betwixt it and Broers Banck, it is narrowest, which lyet not farre from the shoare, thwart of it you must goe close alongst by the shoare.

Quade Banck. The Quade-bancke runneth of to the eastwards of the Head of Dunkercke, at least 2 leagues to the westwards ending thwart of the Heads of Dunkerke. To the eastwards of the easter-head or Dunkerk men may ankor behinde this bank, & lye sheltred for a n.w. n. & n.c. winde, it is 2 fatum deepe there at low water, but in the comming in, it is shoaler. Before the Havens-mouth of Dunkerk, it is 9 & 10 fat. depe, & to the w. wards of the wester-head of Dunkerk 6, 7 and 8 fathom from thence men may runne over the small banck in 3 fathom, & come against the broad Bancke. This

Smal-banck. smal banke lyeth rigt thwart before the Haven of Dunkerk, to witt, betwixt Dunkerke and the Broad banck.

For to sayl in to Dunkerck. For to saile into Dunkerk you must bring the fires within a capstane barrs length one to the other, to witt, the innermost so much to the eastwards of the outermost, keep them so, & run in then close alongst by the easter-head, the westerhead lyeth somewhat further of into the Sea then the other, thwart of it lyet a sand-plate with some places, therefore you must avoyd it, and runne in close alongst by the easter-head it is a narrow Haven, & at hig water and common tyde there commeth no more then 12 foot water. In the nigt thy doe fire teere as at New-port, from halfe Flood to halfe Ebbe, and the lowest fire-beakon standeth next unto the Sea.

The Splinter From the Wester-head of Dunkerck runneth of a banke about 2 leagues long, called the Splinter, which falleth dry at low water at many places, men may sayle in by the shoare, behind this banck from the westwards almost to the Wester-head of Dunkerk, & there may come to an ankor in 5, 6, 7 and 8 fathom. About halfe a league from the foresaid Wester-head, there runneth a Slenk throug the foresaid Bancke, where little shippes may goe throug at hig water.

Graveling. Graveling is also a tyde-haven, where men must goe in at hig water, there stand two beakons, which you must keepe one by the other, and sayle so in betwixt the Heads, on the west-side runneth of a little riffe, which you must avoyd. When you come from the eastwards alongst coast running throug Wolbreck-Sound, at the end of the Brakes, (that are the bankes before Dunkerk, & from thence westwards) then you come against the west-point of the foresayd little Riffe or out-sand of Graveling, which lyeth a good way of into the Sea, to the eastwards of it men run into the Haven Graveling by nigt in with fires.

New-land. To the westwards of the haven of Graveling lyeth a banke or Flat alongst the shoare, lying a good way of from the land to Seawards, almost as farre to the westwards as Callice, called the New-land, men may runne alongst by it, or over it in 5, 4 and 3 fathom, according as men will.

Callice. The Haven of Callice falleth every tyde altogether dry, & at high water with a common-tyde, there is no lesse then 3 fathom water. For to sayle in there you must keepe the mill (standing on the east-corner of the Towne) right over the easter-head, & run in so close alongst by easter-head, & let the castle lye on the west-side of you, from the westerhead runneth of a little riffe, therefore you must avoyd it. When you are come in within the wester-head, you must goe up to the westwards into Paradice, and there lye dry at low water. By nigt when the tyde serveth, there stand two fires, you must run in rigt with them. It is not good to come into this Haven before hig water, because of the exceding strong tyde that runneth in there with the Flood, for to avoid the anchors of the ships, which lye there within. It is there within dangerous and bad lying, especially with a northerly winde which bloweth there open in.

Callice cliffe. Thwart of from Westerhead of Callice lyeth a banck of two fathom betwixt the Head or Meyland, and the same banck men may runne throug in 3 fathom at halfe Flood, the bank is 2 fathom deep. Under Callice cliffe at the east-end, men may anchor in 10 fathom but at the west-end lyet a rock under water, a bow shot from the land. Callice cliffe lyeth betwixt Callice and Blanckenesse.

Of the Flemish Bancks.

WEst from West-cappel, & n. w. from Oostend, about 9 leagues without the coast of Flanders, lyeth a little Plate, where upon at low water is no more then 22 foot water, in foule weather the Sea breaketh very much upon it.

The Trick. About two leagues from Oostend without the land lyeth the Trick, or outerbanck, upon it there is no more then 15 or 16 foot water. When S. Catherines steeple commeth against Oostend, then you come on against this banck: betwixt this banck and the heads of Oostend, lyeth another banck of 3 fathom water.

Betwixt Oostend and New-port lye foure bancks, all which foure begin about thwart of Oostend, the two neerest to the lands-end thwart of New-port. The other lyeal alongst the land almost to Dunkerke: the first & neerest to the land is called the Geere, betwixt that and the land goeth a channel throug, of 8, 9 and 10 fathom.

The Geer. Laland.

The second called Laland, endeth also against Newport, betwixt these two goeth a channell throug of 8 & 9 fathom.

Stroom Stone-banck. The third are two bancks one to the other, the eastermost ending halfe wayes: Laland is called Stroom, the westermost ending thwart of Dunkerck, is called the Stone-banck which hath on the east-side a hooke, which lyeth to the eastwards, running to nothing allmost against Newport: this banck is 3 or 4 fathom, and upon the east-end 5 and 6 fathom.

Sandele or Oud moers-banck. Cal-banck. The fourth is also in two bancks, the eastermost is called Sandele, or Oudemoers-banck, & the westermost Calbank, of some called also Smal-banck, which lyeth alongst by the Broad-bank: but that outer-end lyeth at least two great leagues of.

The

The ſhippes that will goe before Dunkerck and cannot get alonghſt by Flanders, doe runne about without theſe bankes, untill they come againſt Broad-bancke, and then runne in alonghſt by it 5 or 6 fathom. The Channell is 15 fathom deep, and every one of theſe foure bankes hath a dry Poelder. When two Steeples (that are ſomewhat flat to the ſouthward of Newport) ſtand a handſpikes length a ſunder, then are you thwart of theſe foure banckes here before mentioned, which are not deeper at low water then one fathom, and at ſpring-tydes fall almoſt dry.

Betwixt all theſe bankes you may anchor in 9, 10, 11 & alſo in 12 fathom, you may runne over them in 4 fathom, but when you are to the weſtwards of them you ſhall finde it deeper, to wit, 8, 9 and 10 fathom.

Broers-banck. The Broers banck is three corner, and lyeth cloſe by the land thwart of Broers & the Cloyſter Ten-Duynen & lyeth of from the ſhoare about w. n. w. a league into the ſea, when the Cloyſter Ten-Duynen, or the Broers lyeth ſouth from you, then you are at the innermoſt part of the Broers-banck, you may runne through betwixt the land and this banck, in 4 fathom at low water; but men doe run commonly about to the weſtwards of it, when they ſayle throug within the banckes, alonghſt the Coaſt of Flanders.

Cams-banck. A little to the weſtwards of Broers-bank lyeth the Cams-banke, which is 3 fathom deepe, and lyeth in many Raſſes, you may through betwixt the land and this bancke alſo in 8, 9 and 10 fathom, and alſo may ride there for al winds. By the land, betwixt this banck and Broers-banck, it is 5 fathom deepe. When you run through betwixt this bancke & the land, then you come alongſt by the Quade bank untill you come before the Haven of Dunkerck. When you are a good wayes paſt the head of Dunkerck, about ſ. w. from the Splinter, then you runne over a ſhoale of 2 fathom, called Wilbaert Sound, being over it you ſhall have againe then 11 and 12 fathom. When Borburger ſteeple commeth in the valley of the ſand-hill, then you are thwart of this bancke, by theſe markes you may ſayle through theſe banks n. n. w. into the ſea, & come againſt the tayle of the Broad-banck in 4 fathom. When as that you edge againe ſomewhat towards the land in 12, 13 or 15 fathom, then you may ſayle through betwixt the broad and the ſmall bancke, on eaſt northeaſt, or eaſt and by north untill you to paſt the Cloyſter Ten-Duynen, or the Broers-banck, which lyeth of from the Cloyſter about a league in to the ſea. To the eaſtwards paſt this banck it beginneth to be ſhoale water againſt Newport 4 or 5 fathom, being paſt Newport, you muſt edge towards the land, in 8 or 9 fathom, keeping cloſe to the land, and then you ſhall run throug betwixt the land & the Goeree, (which lyet alongſt towards Ooſtend:) When you come againſt Ooſtend, then you are cleare of the bancks, and then you may run into the ſea for to goe into the Wielings.

Wilbaert Sound.

There lye yet 5 long banckes alonghſt Flanders. When Graveling is ſ. e. from you, then you are thwart of the ſouth-end of theſe banckes: and when Newport is ſ. e. from you. Then you are thwart of the northend of them they are very long, and betwixt each goeth a wide Channell through, of 8, 9, 12, 15, 16, 18, 19 and 20 fathom deepe, each of a ſeverall high depth.

The outermoſt or w. moſt bancke called the Cliffe, lyeth from Callice-cliffe n. n. e. about 4 leagues and a halfe, & is 3 fathom & a halfe deep: betwixt this and the other goeth a wide channell through of 23 and 24 fathom deep.

The ſecond called the Ruyting, lyeth from Callice-cliffe n. e. and by north about 4 leagues, and is there 5 or 6 fathom deepe, but upon the ſouthend of it, is a Polder of a fathom and a halfe. When the ſouthend of Winocxbergen commeth betwixt the two flat ſteeples to the weſtward of Dunkerck, then are you thwart of this Polder.

There ſtand three or foure mils to the eaſtwards of Dunkerck, when the outermoſt commeth over the eaſtend of the towne, that is alſo good mark of this Poelder or ſhoale, and then the ſteeple of Dunkerck ſhall be from you ſoutheaſt five leagues.

Betwixt this and the third goeth alſo a channell through 12 and 13 fathom.

The third, called the Dyke, lyeth from Calice-cliffe northeaſt, & is deepe foure & five fathom, upon the ſouth and north end of this banck are Poelders, the ſoutermoſt is deepe one fathom, & lyeth alſo upon the markes of Winoxbergen about northweſt, ſomewhat weſterly from Dunkerck, & is called the Polder of Dyke, or Dyke-Polder, the other Polder or ſhoale of this bancke is about foure fathom and two foot deepe, and lyeth northweſt from the Cloyſter Ten-Duynen. Theſe bancks are very dangerous, for the Ruyting lyeth allmoſt in the fareway, and at low water they have no more then two fathom depth.

The fourth bank, called Kettel-bank, lyeth from Calice-cliffe n. e. and by eaſt and is deepe 3, 4, 5 and 6 fathom. Upon the ſouth end is a ſhoale of one fathom water at low water, at ſpring-tydes theſe Polders fall dry. Alongſt by this goeth alſo a channell through of 19 and 22 fathom.

To the eaſtwards of the Kettel-bank, to wit, betwixt that and the Broad-banck goeth through a great channell of 19 and 20 fathom.

In all the channels betwixt the foreſayd banckes, men may turne to windwards every where from one bancke on the other, and anchor betwixt the banckes where they will.

Broad-bancks. The ſouthend of the Broad-bancke lyeth from Callice-cliffe e. n. e. and hath one ſhoale upon the ſouthend of one fathom and a halfe, is through out 3 and 4 fathom deepe.

The northend is deep 6, 7 and 8 fathom, & lyeth ſo far to the northward, untill Newport be n. w. from you, or the Cloyſter Ten-Duynen bee n. n. w. 5 or 6 leagues from you.

The Coaſt of England, from Dover to the North-Forland.

BEtwixt Callice and Dover amiddeſt in the fareway (or ſomewhat nearer the Frenſch ſide then the Engliſ) lyeth a narrow bancke of foure leagues long, lying about north-northeaſt, and ſ. ſ. w. alongſt the land of Black-neſſe, being called the Vaen, and by the Dutchmen called Vrowſand, of 5, 6, 7 & 8 fathom depth, & runneth to the ſouthwards towards the land Bulleyn. Weſt and by ſouth from Callice-cliffe, & ſouth & ſouth & by eaſt from Dover is the ſhoaleſt of it, at low water not deeper then 16 or 17 foot. On bot ſides of this banck, as well alongſt to the eaſtwards as to the weſtwards of it, it is 20, 22, 23 & 24 fathom deepe. Men may anchor before Dover for a north and n. w. wind, right againſt the Caſtle, in 10 fathom is the beſt road, and cleane ground. For to ſaile into the Downes from the ſouthwards, you muſt run about the South-Forland, within two cables length alongſt by the land, and anchor thwart of the middlemoſt Caſtle in 7 or 8 fatum.

Goodding. The ſouthermoſt poynt of Goodding, and the South-Forland lye northeaſt and ſouthweſt aſunder.

Betwixt Gooddingh and the Valley in the Land of the North-Forland, called Ramſgat, lye two ſhoals, where of the weſtermoſt is called the Quernes, and the eaſtermoſt the Brakes.

For to ſaile from Dover, (throug within the Goodding betwixt the Goodding and the Brakes,) to the North-Forland, you muſt goe on north and by eaſt ſo long untill that the Mill upon the North-Forland come to the weſt-ſide of the Valley in the North-Forland, then goe yet north and by eaſt & north-northeaſt, untill that the little ſteeple upon the North-Forland come to the eaſt-ſide of the foreſayd Valley, then you ſhall bee to the northwards of the Brakes, and then the little flat ſteeple on the South-Forland, commeth to, or right over the third white Chalck-hill to the northwards of the South-Forland, that is a direct long marke, for to ſaile through betwixt the Brakes and Goodding, as well when you come from the northwards as from the ſouthwards.

Brakes. For to ſaile throug within the Goodding from the northwards, you muſt not come nearer the Brakes then in ſeven fathom, and ſeth the South-Forland ſ. ſ. w. from you, and ſaile then ſo rigt with it, and then you ſhall runne alongſt the beſt deepe. When as the flat ſteeple upon the North-Forland ſtandeth in Rampſgat or the Valley, then you ſhall be thwart of the Brakes, and when the Mill commeth in Ramſgat, you ſhall be to the ſouthwards of the Brakes.

When you lye in the Downes, and that the inner poynt of the cliffe of the ſouth Forland lye ſ. ſ. w. from you, then Quernes lye north and by eaſt from you, and the end of Goodding n. e. from you.

Quernes.

The north-end of Goo lding, an the poynt of the north Forland, lye ſ. e. and by eaſt and n. w. and by weſt a league and a halfe aſunder.

For to ſayle throug betwixt the Brakes and Quernes.

For to come from the northwards into the Downes through betwixt the Brakes and the Quernes: there ſtandeth a Church upon the high land of the ſouth Forland, to the northwards of it, which is flat ſteeple, and the Church ſomewhat great of body, and there are three Caſtles upon the ſtrand of the Downes, you muſt bring the foreſayd Church with the flat ſteeple rigt in the middeſt betwixt the two ſouthermoſt Caſtles, and then you are in the fareway in the middle of the Channel, and that wil ſerve for a leading mark to run throug betwixt the Brakes and the Quernes, and the courſe lyeth throug ſ. ſ. w. If the winde bee ſouther-ly, that you muſt turne to windwards throug, runne not further over the eaſtwards then that the foreſayd Church come within two ſhips length of the ſouthermoſt Caſtle, for if you ſhould bring them neerer, or together, then you ſhould run upon the Brake, and being caſt about run not further over the weſtwards then that the foreſayd Church come within two ſhippes length of the three, for if you ſhould bring them neerer or together you ſhould run upon the Quernes, and theſe markes wil ſerve to runne to windwards throug betwixt the Brakes and Quernes, either from the northwards or the ſouthwards. The Brake is ſteep, being 5 fathom, cloſe alongſt by the ſide of it, and in the middle of the channel is but 15 foot at low water, ſo that is deeper by this ſide of the Brake, then in the middle of the Channel. As you turn to windwards, and run over to the eaſtwards towards the Brake, as ſoon as you muſt caſt about, or els you ſhould be againſt the krake: the Querne is flat, but never the leſſe as ſoon as you finde it ſhoaler (in running over to the weſtwards the Querne) then 15 foote, you muſt caſt about again, and ſo turn throug. About halfe a league from the north-end of the Goodding to the ſouthwards, lyeth of a flat tayle or ſpit of ſand to the weſtwards from the Goodding, a great musket ſhot of, and falleth dry a good wayes of a low water, which maketh the channel there betwixt the Goodding and the Brake very narrow, the thwart markes of this tayle of ſand are theſe: ub within the land, a little to the ſouthwards of Ramsgate, ſtand 3 or 4 hig trees together, when theſe trees doe come right over the ſouthermoſt-end of the cliffe that lyeth alſo a little to the ſouthwards of Ramsgat, then you are thwart of this foreſayd tayle of ſand, as ſoon as you ſhall bee paſt it, then you ſhal have more roome to turne to windwards, and may run further over to the Goodding.

Thwart markes of a taile of ſand, lying of from the Goodding.

For to run about a Seaboard of Goodding.

For to ſayle from Dover without the Goodding to the north Forland, you muſt keepe the poynt to the weſtwards of Dover without the ſouth Forland, & goe on n. e. untill that the north Forland come n. w. & by weſt from you, then you may boldy run to the north Forland, & anchor before Margate, or where that you ſhall think it beſt, but thwart of the ſteeple, where the Mill ſtandeth by, is the beſt roade. Or when the poynt of the north Forland lyeth ſ. ſ. w. and ſ. w. & by ſouth from you there is alſo good riding in 8 or 9 fathom. Betwixt Margate & the Reculvers, men may anchor every where in 6 or 7 fathom at halfe flood.

Betwixt the Quernes & the north Forland men may alſo run throug to Sandwich, there runs of a little ſtone-banck from the ſhoare, called the Fourefoot, betwixt that and the Quernes it is a halfe flood 2 fathom deepe. The Quernes are lately growne much leſſe, and ſhifted, ſo that the north-end of them is almoſt gone.

Of the Tydes and Courſes of the Streames.

Alongſt the coaſt of Flanders on the Land, a ſouth and north Moone maketh full Sea.

In the fareway without the Flemiſh bankes in the Sea, a ſ. w. Moone maketh high Water.

In the middeſt betwixt the heads, a ſ. w. Moone.

At Dover, a ſouth & north Moone.

In the Downes, a ſ. ſ. w. Moone.

At the north Forland, a ſouth and north Moone.

Alongſt the Flemiſh bankes, the fore-flood falleth over the bancks, towards the land, about the third part of the tyde, afterwards alongſt the Land, but the afterflood falleth to the northwards alongſt the Sea in the rigt fareway.

When the flood beginneth to go there thwart of at Sea, then it is already half flood on the land, and the water flowen halfe wayes, ſo that men may goe into all the Havens on the Flemiſh coaſt with 5 or 6 foot water.

In the middeſt throug the Heades, the flood falleth n. e. and by eaſt, & the Ebbe ſ. w. & by weſt.

From Dover to the north Forland, the tyde falleth throug within the Goodding north & ſouth over the Brakes & Quernes.

Before Callice and Blackeneſſe, the flood falleth firſt one quarter to the land, afterwards n. n. e.

Of the Depths.

In the rigt fareway betwixt the Marſdeep & the Heades it is 23 & 24 fathom deepe. A little without the Flemiſh banckes 18, 19 & 23 fathom, but neere Goodding, or about the north Forland, it is 26, 28 and alſo 30 fathom deep, the neerner Goodding the deeper water.

Being thwart of Goodding in 28 or 29 fathom, you ſhal not be two ſhots of a caſt-peece from it.

For to ſayl out of the Marſdeep towards the Head, go not on otherwiſe then ſ. w. & ſ. w. and by ſouth, (but you muſt be very carefull to take heed of the tydes) when you ſhall reckon to have ſayled 40 or 46 leagues then edge over to the Flemiſh bankes, untill you come in 20 or 18 fathom, when that you are ſure of theſe grounds, then goe on ſouthweſt, and at length ſouthweſt, & by weſt, & you ſhall come in the midſt betwixt the Heads of Callice & Dover.

Flandres you may ſee from the Poope in 16 fathom, and then you are within the point of the Flemiſh bankes.

Callice-cliffe & the ſouth Forland, or the poynt of Dover you may ſee when you are before them in 24 fathom.

Courſes and Diſtances.

From Blanckenbrough to Ooſtend ſ. w. & by weſt	2 leagues
From Oſtend to Newport w. ſ. w.	3 leagues
From Newport to Dunkerck w. ſ. w.	5 leagues
From Dunkerck to Graveling w. ſ. w.	5 leagues
From Graveling to Callice w. ſ. w.	4 leagues
From Callice to Callice-cliffe ſ. w. & by weſt	1 league
From the Heads of Callice and Dover to the Riffe of Jutland	nord nordeaſt 120 leagues
From Callice-cliffe to the Naze in Norway, n. n. e.	ſomewhat northerly 143 leagues.

Heights.

The Heads and Dover lye in 51 degrees 12 minuten.

How theſe Lands doe ſhew them ſelves at Sea.

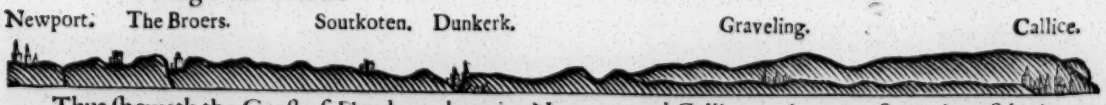


Thus ſheweth the Coaſt of Flanders betwixt Ooſtend and Newpoort.



Thus ſheweth Dover when you ſayle to the weſtwards of the Vaen, or Vrow-ſand through the Heads.

When you run from the Downes towards the north Foreland, then the land ſheweth it ſelfs thus.



Thus ſheweth the Coaſt of Flanders, betwixt Newport and Callice, when you ſayle alongſt by it.

The

Sorlinges.
Bretaigne.
Normandie.
VRANCK RYCK.
Caux
Devona.
Dorchester.
Southampton.
Kent.
Sussex
ENGELA
Walles.
Mount.
Ster.
YR
Connaug
Leinster.
Lincolne
Essex
Suffolk.
Norfolk.
Gallowey
Lymricke
Kinsael
Waterfoort
Brisson
Chester
London
Dublin
Calis
Boloigne
Diepe
S. Malo
Cornwald
Greesholm
Smeale
Barnstaple
Bristow I.
Angleseye
Yarmouth
Lincolne
Boston
Wells
Blackeney
Cromer
Yarmouth
Lestoff
Ipswich
Harwich
Colchester
Maldon
Tilbery
Gravesend
Sheppey
Foulkston
Dover
Rye
Hastings
Portsmouth
Southampton
Poole
Weymouth
Lyme
Exmouth
Dartmouth
Torbay
Plymouth
Falmouth
Penzance
Scilly
Lundy
Scalme
S. David
Milford
Cardiff
Newport
Bristow
Bristol
Glocester
Worcester
Hereford
Shrewsbury
Chester
Liverpool
Lancaster
Carlisle
Berwick
Edenburgh
Dunbar
Aberdeen
Montrose
Dundee
Perth
Stirling
Glasgow
Dumbarton
Greenock
Ayr
Portpatrick
Donaghadee
Carrickfergus
Belfast
Dundalk
Drogheda
Dublin
Wicklo
Waterford
Kinsale
Corke
Castlehaven
Ross
Glendore
Oldcastle
Smalbay
Korck
Korckbeg
Ardmore
C. Donet
Strangmore bay
Point Baliquella
Houcketour
Kinsale
Tuskar
Arklow
Wicklo
Blackhead
Drogheda
Dublin
Kingstown
Howth
Lambay
Skerries
Strangford
Portaferry
Donaghadee
Belfast
Carrickfergus
Larne
Glenarm
Ballycastle
Rathlin
Fair I.
Shetland
Orkney
Pentland
Duncansbay
Wick
Helmsdale
Cromarty
Inverness
Fort Augustus
Fort William
Oban
Mull
Islay
Jura
Arran
Ailsa
Kintyre
Lochfine
Inchkeith
Leith
Berwick
Holy I.
Farne I.
Coquet I.
Tynemouth
Sunderland
Hartlepool
Whitby
Scarborough
Flamborough
Bridlington
Hull
Grimsby
Lincolne
Boston
Wainfleet
Lynn
Cromer
Yarmouth
Lestoff
Aldborough
Orford
Ipswich
Harwich
Colchester
Maldon
Tilbery
Gravesend
Sheppey
Foulkston
Dover
Rye
Hastings
Winchelsey
Brighthelmston
Arundel
Chichester
Portsmouth
Southampton
Lymington
Poole
Weymouth
Lyme
Exmouth
Dartmouth
Torbay
Plymouth
Falmouth
Penzance
Scilly
Lundy
Milford
Tenby

Pas-Caert van
ENGELANDT
Schotlandt Yrlandt
En een Gedeelte van Vranckryck
op Nieuws Overgesien en verbetert

't Amsterdam
By Iacobus en Casparus Loots man Boeck-verkoopers
op 't Water in de Loots man

Duytsche Mylen 15 in een Graet
Spaensche Mylen 17½ in eē Graet
Eng: en Fr: Mylen 20 in een Graet

Ulster.
Dery
Tirone
Tirconnel
Fermanagh
Cavan
Monaghan
Armagh
Down
Antrim
Londonderry
Coleraine
Carrickfergus
Belfast
Strangford
Lough Neagh
Lough Erne
Lough Foyle
Lough Swilly
Lough Larne
Lough Carlingford
Lough Strangford
Lough Belfast
Lough Coleraine
Lough Londonderry
Lough Tirconnel
Lough Fermanagh
Lough Cavan
Lough Monaghan
Lough Armagh
Lough Down
Lough Antrim
Lough Londonderry
Lough Coleraine
Lough Carrickfergus
Lough Belfast
Lough

Duytsche mylen 15 in een graet

Spaensche mylen 17½ in een graet

Eng: en Fra. mylen 20 in een graet

V R A N C

Diepe

Fecam

Croisy

Oostduyn

Antr H.

S. Josse

Monstreul

Estaples

Boloigne

Beunen

Tour d'ordre

Cudsman

Ambleteul

Swartenes

Vrouwen Sand

de Hoofden

Romney

Rye

Dover

Dover Castle

Ketlsted

Beveler

Cuckmerhaven

Nieuwerhaven

Bramber

Queenes

Island of Thanet

E N G E L S A N D

De Cust van

NORMANDIE,

en Picardie: als mede een gedeelt van Engeland, tusschen de Hoofden, Ornay ende Poortlant:

't Amsterdam,

By Iacob Theunisz. op 't water in de Lootsman.

R Y C

Caen

Eslreehan

Seyn

Rade van Enckhuysen

Enckhuysen

Vlie

Texel

Vlieter

Rade van Texel

Seynhoofd

Rijnsburg

Vlieter

Quayeme

Mayol

Fde S. Marcus

la Hange

C. de Barfleur

C. de Jerrek

Chierbourg

Rade de Roberville

C. de la Hague

Ras van Blanckert

Ornay

Ornay

Wicht

Arundel

Selsey

Chichester

Portsmouth

Newport

De Nacklen

Calshot caste

Southampton

Weembury

Swanage

Molfer's horn

Portland

't Ras van Poortlant

The second Part of the New

LIGTNING COLUMNE

The second BOOKE of the

VVesterne Navigation.

CONTAIGNING

The Description of the Sea-Coastes of France, from Blackenesse to Ushand & the Coast of England, from Dower westwards, to the Lands-end the Channell of Bristow, with all the Sea-Coasts of Yreland.

The first Demonstration,

Where in are seth forth

The Coasts of France, from Blackneſſe to the Island Aldernay or Ornay, from Dover to Beachy.

Blackneſſe.

ABout a great league to the westwards of Callice-cliffe lyeth Blackneſſe, a fowle Out-point thwart of it lye many roks alongst the shoare. From Blackneſſe to the River of Bullen, lyeth the coast south & by east 3 leagues, a league to the southwards of the Neſſe, the land falleth somewhat in with a faire sandy Baye. In this Baye lyeth a Fisher Village on the Coast, thwart of it in the sandy Baye is a very good roade for easterly windes, in 5, 6, 10, 15 and 16 fathom, according as you wil lye farre from the shoare. For to anchor there, you must bring the steeple of the village over the middest of the houses. This places is called S. Johns roade. A little to the nordwards of that foresaid Fishers Village, stand a Mil with some Houses, from thence to the northwards you may not anchor, for there the ground is fowle & stony. To the southwards of the Roade towards the River of Bullen, lye also some little Rockes alongst the coast which you must not very neere to.

S. Johns roade.

Bullen.

Upon the north-point of the River of Bullen standeth a hig thick Tower, called the Tour d'Ordre, by Sea-men the Old-man, a special mark for to know the River by. About an English mile to the northwards of this Tower, a little mile from the shoare, lyeth a little Suncken Rock under water where a Huye or Smack may not goe over.

Tour d'ordre.

Oldman

Suncken Rock.

Upon the south-point of the River of Bullen standeth a stone wal, & upon it a great Beakon of a mast, thwart of it from the south-point lyet of a little Riffe or shoale, that you must schun, and run close alongst by the Head, which lyet at the north-point, & hath been there lately made. When you are come within this Head, you must presently let fal your anchor and ride there: It is a tyde-haven, there you must goe in at hig water, and at low water lye dry upon the chindle. Without, before the River, lyeth a banck, men where wont from the southwards to run in over in 2 fathom and from the northwards in 3 fathom, but it is now to the southwards deeper, throug the scouring of the water alongst the foresaid Head which is made at the north-poynt.

The Somme

From the Oldman, or the River of Bullen to Somme is the course south, about 11 leagues, between them lye also two other Rivers, Cauche & Auty, upon the first ly Eastaples and Monstreu, there you must goe in a middle channell at the highest water, within, it falleth altogether drye at low water.

Men may sayle into the Somme, throug two channels from the east-poynt called the East-downe, lyeth of a sand thwart before the channel; to the westwards of that riffe lyeth also another great banck, between them goeth in the Easter-channel. For to sayle in there, bring S. Valery a cables length to the westwards of the west-point of the River, called the Oordel, and run in there upon, until you come to the land at that foresayd west-poynt, and from thence close alongst by it, or as soon as you get againe deeper water over the Banck, then runne up eastward towards the beacons. From the poynt of the Oordel lyeth of to the northwards a little riffe, upon the end of it lyet a buy which you must leave on the starboard-side, and run in close about to the northwards of it. From the poynt of the Oordel upwards, it is set alonghst with beacons, you must run alongst close by them, until you come within the poynt of S. Valery, where you must anchor, and lye every tyde dry. The sands there within do shift of often, that they are no to be described for al wayes.

For to sayle in to the Somme

For to sayle into the Western-channel, comming from the east or the north you must run alongst by the bancks in 6 or 7 fathom, and not neerer, they are so steepe, that a ship sitting fast upon them with the fore castle, at the stern hath 3 fathom. Comming towards the land at the end of the Banckes, you shal finde a buy. Or els if you come from the west and bring Crotoye a cables length within the Oordel, and sayle so right in, you shal finde the foresayd outermost-buy. Besides this, there lye three other buyes where of that foresayd buye on the poynt of the Oordel is the fourth, & the innermost: You must leave them all on the starboard-side towards the land, and run in alongst by them to the northwards of them.

For to sayle in to the Wester channel

The channels and sands there within (al until past Saint Valery) fal at low water altogether drye, the buyes also fal drye, that men may goe by them, a halfe flood with an ordinary tyde there is no more then 2 fathom water, it is not good to goe in there before that two third parts of the Flood bee spent. With an ordinary tyde it floweth there 5 & 6 fathom, but with a springe-tyde 7 fathom up and downe. At high water and spring-tyde, a man may goe over al the banckes and sands with 8 or 10 foot water, 5 leagues upwards lyeth Abbeville.

Thwart

Thwart of the Somme, it is farre of into the Sea ſhoale water, 5,6,7,8,9 and 10 fathom, 3 or 4 leagues of into Sea. He that commeth from the weſt, and findeth himſelfe in darke and miſty weather to bee in ſuch ſhoaling, may bee wel aſſured, not to bee farre from the Somme.

From the Oldman to Diep, the courſe is ſ. ſ. w. 18 leagues, but from the Somme to Diep ſoutweſt & by weſt eight or 9 leagues. About halfe way betweene the Somme & Diep, lyeth the River of Heu, within in on the north-ſide lyeth

Treſport. Treſport, being alſo a tyde-haven, where men muſt goe in at high water, and at low water lye dry.

Diep. At the eaſt-ſide of the Haven of Diep, lyeth a ranck of Rocks, and from it lyeth a little Riffe of Chindle towards the north, or the weſt; to the ſouthwards of this riffe goeth in the channell, about ſoutheaſt in, it is very narrow, and a ſhort inlet, therein lye three buyes in the middeſt of the deepe, not above ſtones caſt one from the other, men may run in on both ſides of them; comming to the end of the buyes, they muſt keepe the middle of the channell, and run in betweene the heads, untill they come within the Towne, and there make faſt with a cable on the ſhoare. Men may not ſayle in there before flood, but not at halfe ebbe; at low water it falleth altogether dry, but within at the Towne men may ride a float, at high water there commeth 3 fathom, or at the heigheſt not more then 3 fathom & a halfe water, there come out alwayes Pilots to bring ſhips in.

S. Valery in Caux. From Diep to S. Valery in Caux, it is ſouthweſt & by weſt 4 leagues, that is alſo a tyde-haven, where you muſt goe in with high water, it is narrow channell where you goe in betweene to the Heads, there is neither ſand nor bancke before it that can hurt you, being come in, you may let your anchor fall, and make you faſt with a cable on the ſhoare. Hee that hath neither cable no anchor, may (being come there within) ſayle his ſhip on againſt the ſhoare in the chindle, and ſo ſave his ſhip and goods without dammage.

Fecam. From S. Valery to Fecam it is weſt ſouthweſt, 4 leagues; that is a deepe tyde-haven, there remaineth at low water little leſſe then 2 fathom water. At the eaſt-ſide of the havens-mouth lyeth a bancke or plate, men may with ſmall ſhippes ſayle in throug betwixt it & the land, & ſo runne in, ſoundingh, borrowingh it 8 or 9 foot alonghſt by the eaſt-ſhoare, which is flat. For to ſayle into the weſtwards of the plate, you muſt keepe the Tower of Fecam, without the land, or without the Weſt-poynt of the Haven, and then it ſhall bee ſ. ſ. e. from you, run then upon that mark into the Haven, and then the foreſayd ſand ſhall remaine on the larboard ſide of you, and at halfe flood you ſhall have in the Havens-mouth 2 fathom water, being come in before the Towne, you may anchor there by the Weſterne-ſhoare in 3 fathom.

Struyſaert. From Fecam to Struyſaert it is weſt ſouthweſt three little leagues. Without the poynt of Struyſaert lye two high ſharp Rocks. From thence to Seynhead it is ſouth & ſouth and by weſt, 2 leagues and a halfe.

About n.w. from Seynhead lyeth a bancke, upon which at low water remaineth no more then 2 fathom & a halfe water: when the Towne of New-haven commeth without Seynhead then are you thwart of the bak: For to avoyd it, run in cloſe aboard the Seynhead, alongſt untill you come within the firſt mill, there let fall your anchor in 6 fathom, and ſtay for a Pilot to bring you into the Haven.

For to ſail into the River of Roan. For to ſayle into the River of Roan, comming from the north or the eaſt, you muſt run cloſe aboard the land to the northwards of Seynhead, & alongſt by it, ſo long untill the ſouthſide of the River come unto the poynt of Seynhead, then runne in with it, untill the land to the weſtwards of New-haven come without New-haven, ſayle then unto the Haven of Newhaven. Or elſe, if you will goe without about the Banke or the Rettires, then edge over to the weſtwards ſo far from the land untill the River come open, ſayle then towards the point of Tochet, and run upon your lead by it, there is at high water 3 fatum & at low water no more then one fathom. The Rettiers is a ſtony banke, lying in the middeſt of the River of Seine, lying over towards the poynt of Honfleur, at low water it falleth at ſome places dry, at halfe flood it is to the ſouthwards 3 fatum, but to the northwards 2 fathom deep. When the land of Caen is without the point of Seynhead, and you ſayle then with it, ſouth on, then you runne to the weſtwards of it, or alongſt without it. Or elſe, if you keepe Struyſaert a hand-ſpikes length without the poynt of Seynhead, then you run alſo without it. When the eaſter-gate of New-haven commeth over the Eaſterhead, and the eaſter mill, ſayle then ſo on keeping them ſo, then you run in right to the northwards of the Rittires, & alſo you can take no hurt of the bank that lyeth towards Seynhead. At Habell or New-haven men muſt goe in at high water, and within lye everye tyde dry.

The River of Saine muſt be ſayled into upon the tyde, when the moſt, or the ſtrongeſt of the flood is ſpent, then you may ſaile alongſt by the land upon your lead, untill you may ſee in open into the River of Newhaven, when then the Southercaſtle commeth over the Eaſterhead, & the mil; run then rigt upon it, but it is beſt to anchor halfe wayes betwixt the Caſtle & Seynhead, & there to ſtay for a Pilot: If there come none of, then ſayle from thence right with the Caſtle that ſtandet upon the head, there it is deepeſt water.

To ſayle from New-haven upwards towards Roan, is not well to be done without a Pilot, you muſt goe with the tyde throug the firſt travaille or Banckes, which lye from New-haven to Honfleur ſoutheaſt, alongſt by the Southerland, and from thence alongſt the north-ſide of the River to Quillebeuf, being come there, you are throug the firſt travaille. You muſt alſo bee well adviſed, and take good heed for the ſtrong ſpring by the Normans, called La Barre, which everye tyde commeth on ſo ſtrong whith the flood, that anchors and Cables have enoug to doe hold a ſhip: For that and other dangers more, it is not good nor convient to ſayle up the River without a Pilot.

Two great leagues to the ſouthwards of the River of Roan, lyeth a tyde-haven, called Tochet, on the weſt-ſide Toch of the entry ſtandeth a Beacon, by it you muſt goe in, or you may ſound it in by the eaſter-ſhoare. Southweſt, or ſouthweſt and by ſouth from the poynt of Seynhead, about 6 or 7 leagues of, lye many Banckes, a good wayes in Sea, you may ſayle on both-ſides of them (as well to the eaſtwards as to the weſtwards) into the Foſſe of Caen, which lyeth Foſſe Caen. in moſt ſouth, and lyeth in a Baye. At the weſt-ſide lyeth a chindle, where men may ryde within it, it is wyde and broade; and ſandy ſtrand, the Eaſt-land is ſand-hills, & farre flat in 6 and 7 fathom, there men may goe in, ſoundingh with the ſoundingh Pole.

From Seynhead to Cape de Barfleur, or Cape de Schierboroug, the courſe is weſt & by north, 19 leagues. About Cape Schierboroug 4 leagues to the eaſtwards of it lye the Iſlands of S. Marques, men may ſayle round about them, but it is not there very cleane.

A league to the weſtwards of the Iſland of Saint Marcus S. Marcus. lyeth La Honge a flat Tower, to the weſtwards of it lyeth La Hong the poynt of Barfleur, betwixt both is a great baye, where men may lye in ſix or ſeven fathom land-lockt for a north northweſt winde. A northeaſt winde bloweth there open in.

From the north-poynt or Cape de Barfleur (which lyeth north-northweſt from you, when you lye in the road) lyeth of a banck or little riffe, yet a ſhippe may go over it. North- Sunke Rock. eaſt a league and a half of from the foreſayd poynt lyeth a Rock under water, where ſhippes may not goe over.

From Caep de Barfleur to Schierboroug it is northweſt and by weſt 4 leagues, that is a little Tyde-haven. To the weſtwards of the point of Barfleur lye ſome foule grounds, if you keepe the high land of Schierborough without the Cape de Wyck Cape de Wyck, you ſhall not come to neare them.

Before Cape de Wyck is a good roade in 6 fathom, a litle to the eaſtwards of the two high Rockes in a ſand-bay.

Before Schierboroug lye ſome Rockes, or little Iſlands, which are cleane round about, to the weſtwards of it lyeth a Tyde-haven, called the Eſloe of Moberille, before it on both ſides lye 4 or 5 high Rocks, at high water men runne through betwixt them, and ſo into the Haven. A great league and a halfe to the weſtwards of it, lyeth Cape de Hague. Cape de Hague.

Two leagues weſt and by north from Cape de Hague lyeth the Iſland Aldernay or Ornay, betwixt them goeth the Race of Blanckert throug.

The

The Coaſt of England.

Road under the Neſſe.

THE point of Dongie Neſſe lyeth from Dover ſ.w. & by weſt diſtant 8 leagues. At the eaſt-ſide of the Neſſe in Romans-Bay, thwart of the Romans-Tower, is a good roade for weſt & ſ.w. windes: For to ankor there runne ſo far in the Bay, that the point of the Neſſe be ſouth and by ſouth and by weſt from you, anchor there in about 7 or 8 fathom: you may alſo anchor on the weſt-ſide of the Neſſe, for a northeaſt winde, ſo that the point lye eaſt and by north from you.

Camber of Rye.

For to ſayle into the Chamber of Rye, comming from the weſt, you muſt keep Beachy without the poynt of Fairlee, & run ſo towards the Neſſe, and being come in faire by it, run in without two Cables length alongſt by it, unto the end of the Neſſe, then edge up to the weſtwards, and leave the beakons upon the ſtarboard-ſide, until you come before the Caſtle Camber, that ſtandeth upon the ſouther-chindle there you may anchor in 4 & 5 fathom: From thence alongſt even unto the Town of Rye, it is al ſet with beacons, which ſtand alongſt by the eaſt-ſide of the Deep, unto the Daires, which at low water fal dry. In ſayling unto Rye you muſt leave al the beacons unto the ſtarboard-ſide, and run indifferent cloſe alongſt by them.

Road under the Beachy.

The poynt of the Neſſe & Beachy lye w. ſ. w. and e. n. e. diſtant 7 leagues. Beachy is by the ſeven white Cleeves, the beſt known land that a man can ſe any where. To the eaſtwards of Beachy men may ankor for weſterly windes in 6 or 7 fathom, ſo that the poynt be ſouth, and ſouth and by weſt from you.

Of the Tydes and Courſes of the Streames.

Before Callice and Blackneſſe, the Floot falleth firſt one quarter to the land afterwards, n. n. e.

Betwixt Blackneſſe and Bulleyn, the Flood falleth north & by eaſt by the land, but a Sea-board in the offing northeaſt. A ſouth & ſoutheaſt moone maketh there the higheſt water.

Betwixt Bulleyn, Diep, and before the Somme, the Flood falleth firſt one quarter to the land; afterwards northeaſt and by eaſt, and the Ebbe ſouthweſt and by weſt.

Betwixt Diep and Struyſaert without the land in the Fareway, the Flood falleth northeaſt, and by eaſt, and the Ebbe ſouthweſt & by weſt.

At New-haven, and in the River of Roan a ſoutheaſt Moone maketh a high water.

From Struyſaert to Caen in the Foſſe, the Flood falleth ſouth ſouthweſt, and the Ebbe north northeaſt.

Before the Haven of Caen a ſouth ſoutheaſt maketh high water, within the Haven a ſouth and by eaſt Moone.

At Marckell, la Honge, Barfleur, Scherborough, and C. de Hague by the ſhoare, a ſouth & by eaſt Moone.

From Seynhead to Barfleur, the Flood falleth by the land eaſt and by north, & the Ebbe weſt & by ſouth. But in the channell a Sea-boarde the land, the Flood falleth a way eaſt northeaſt, & the Ebbe weſt ſouthweſt.

At Cape de Hague by the ſhoare, a ſouth and by eaſt Moone maketh high water.

In the Race off Blanckert a north and by eaſt, and ſouth and by weſt Moone. The Flood falleth throug the Race n. e. & the Ebbe ſouthweſt.

In the middeſt betwixt te Heades a ſouthweſt Moone.

At Dover a ſouth and north Moone.

Betwixt Dover & Dongie Neſſe, and likewiſe thwart of the Neſſe, a ſ.ſ.w. Moone maketh full Sea.

In the Chanell of winchel Sea, a ſouth and by eaſt Moone.

At Beachy by the ſhoare, a ſouth ſoutheaſt & north northweſt Moone.

In the fareway thwart of it, a ſouth & north Moone.

From Dongie Neſſe to Dover, the Flood falleth n. e. & by eaſt, & the Ebbe ſouthweſt & by weſt.

From Beachy to the Neſſe, eaſt northeaſt and weſt ſouthweſt.

At Beachy by the ſhoare before the ſeven Cleves, the Flood falleth eaſt & by ſouth, and the Ebbe weſt and by north.

Of the Depths.

Callice cliffe & the South-Forland, or the poynt of Dover, you may ſee when you are before them in 2 fathom.

To the ſouthwards of the Oldman, or Tour d'Ordre, lyeth the hig land of Eſtaples, which is very good to bee known, becauſe thereabouts is no land ſo high. When that is n. n. e from you; and you be thwart of the Somme, it is there deepe 8 and 9 fathom.

Upon the land of Somme towards Diep, ſtand many ſharp Towers, & ſome Milles & Trees, & hath all alongſt the coaſt a ſandy ſtrand.

Before Diep, men may ſee the land in 20 & 22 fathom.

About 4 leagues without Struyſaert it is deep 20 fathom.

Between Deep & Seynhead ſtand alſo many ſharpe Towers, Trees & Houſes upon the land. Struyſaert is beſt to be knowne on a great Rok like a high Tower, thwart of it in the fareway it is deepe 16 and 17 fathom.

About Caep de Barfleur and Sherborough 4 leagues from the Iſland, it is deepe 30 fathom.

Barfleur is a high poynt, below upon the white land ſtandeth a flat Tower, two Milles, and ſome little Houſes, and to the weſtwards of it is more white land.

Upon Cape de Hague ſtandeth a Caſtle, with a little turreth; a little to the eaſtwards of it in the land ſtandeth a ſharp Tower. Two leagues to the eaſtwards of it lyeth Sherborough with a flat ſteeple.

Betwixt winchel Sea and Picardy in the middeſt of the Channell it is deepe 26 and 27 fathom, upon ſuch depth men may ſee Fayerley and the land of Dover.

Without Beachy twart of the ſeven Cleeves it is deepe 28 and 30 fathom.

Courſes and Diſtances.

From Callice-cliffe to Blackneſſe, ſ w.	one great league
From Blackeneſſe to the Oldman, ſouth	2 leagues
From Blackneſſe to Somme ſouth	14 leagues
From the Oldman to the Somme ſouth	11 leagues
From the Somme to Treſport w. ſ. w.	7 leagues
From the Oldman to Deep ſ. ſ. w.	18 leagues
From Treſport to Diep ſouthweſt and by weſt	4 leagues
From Diep to Fecam, w. ſ. w	10 leagues
From Fecam to Struyſart ſ. w. and by weſt	3 leagues
From Struyſaert to Synhead, the courſe is ſ. ſ. w.	2 great leagues
From Seynhead to Caen in the Foſſe, the courſe is ſ. w. & by ſouth 8 leag.	
From Seynhead to C. de Barfleur to Chierenburg, w. & by north	19 lea.
From Blackneſſe to Diep ſouth and by weſt	22 leagues
From Blackneſſe to Struyſaert or C. de Caux, ſ.w. and by ſouth	31 leagues
From Blackneſſe to the Caskets, the courſe is w. ſ. w.	54 leagues
From Blackneſſe to Wight weſt ſomewhat ſoutherly	37 leagues
From Blackneſſe to Beachy weſt	18 leagues
From Diep to Wight, the courſe is weſt northweſt	36 leagues
From Diep to Beachy northweſt and by north	25 leagues
From Seynhead to Diervliet, or the poynt of Sherbroug, weſt & by north	19 leagues
From Seynhead to Portland northweſt and by weſt	38 leagues
From Struyſaert to the eaſt-end of Wight, northweſt ſomewhat northerly	29 leagues
From Struyſaert to Beachy, north	26 leagues
From Struyſaert to Fairlee, north & by eaſt, ſomewhat northerly	29 lea.
From Struyſaert to the poynt of Dover, the courſe is n. n. e.	35 leagues
From Caen to Dierfliet, of the poynt of Barfleur nortweſt	16 leagues
From Dierfliet to Cape de Hague, weſt northweſt	8 leagues
From Dover to Dongie Neſſe, ſ. w. and by weſt	8 leagues
From the Neſſe to Fairlee, weſt ſouthweſt	3 leagues
From Dongie Neſſe to Beachy, w. ſ. w.	7 leagues
From Fairlee to Beachy, ſ. w. and by weſt	5 leagues

Heights.

The Head and Dover lye in	51 degr. 12 min.
The Somme lyeth in	50 degr. 6 min.
The Poynt of Struyſaert in	49 degr. 35 min.
Beachy lyeth in	50 degr. 50 min.

How theſe Lands doe ſhew them ſelves at Sea.



Tour d'Ordre.

Calice-cliffe. Oldman. The land of Bullijn.

From Calice-cliffe unto beyonde Bulleyn, the land ſhew it ſelfe thus, when you ſaile alongſt by it.

The hig land of Eſtaple north northeaſt — Eaſt and by ſouth.



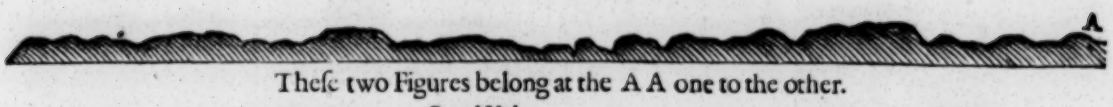
This undermoſt is Sand-hils.

Thus ſheweth the land betwixt Eſtaples and the Somme, when the hig land is n. n. e. from you.

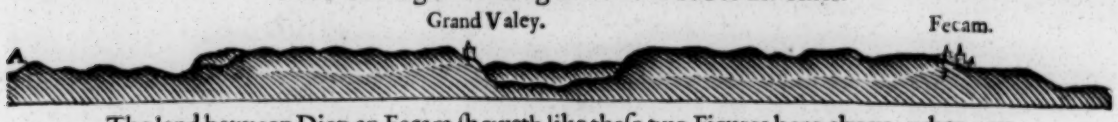


Sandhills. White Chalky Cleeves.

Thus ſheweth the land to the ſouthwards of the Somme towards Diep.



Theſe two Figures belong at the A A one to the other.



The land between Diep an Fecam ſheweth like theſe two Figures here above, when you ſayle alongſt by it, two or three leagues without the land.



The Forme of Struyſaert, and Scynhead, when you ſayle alongſt by them.



Thus ſheweth the land or Caen, when you are foure leagues of from it.



Thus ſheweth the land of Scherboroug, & the land to the weſtwards or it towards C. de Hague, when it is ſ. e. 4 leagues off from you.



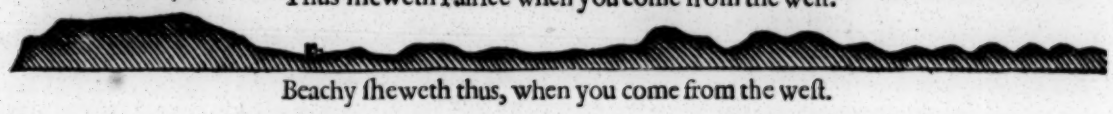
Thus ſheweth Dover when you ſaile to the weſtwards of the Vaen, or Vrow-ſand, throug the Heades.



Thus ſheweth Fairlee, when you ſaile alongſt by it.



Thus ſheweth Fairlee when you come from the weſt.



Beachy ſheweth thus, when you come from the weſt.

The ſecond Demonſtration,

Where in are Decyphered

The Coaſt of Brittannie, from the Iſland of Ornay to the Iſland of Ushant.

Cape de Hague. Ornay. The Race of Blanckert.

TWo leagues weſt and by north from Cape de Hague, lyeth the Iſland Aldernay or Ornay, betwixt them goeth the Race of Blanckaert throug. Aldernay or Ornay is about 3 leagues long, and lyeth eaſt and weſt. The eaſt-end is cleane, men may ſayle reaſonable cloſe alongſt by it, but the weſt-end is very foule: There lye ſome little Iſlands cloſe by the weſt-end, being paſſed them, men may ſayle towards Jarſey without any feare.

To the ſoudwards of the foreſaid litle Iſlands at the weſt-end lyet of a ledge of rockes within it, on the ſouth-ſide it is cleane, except at the ſouth-poynt, that is alſo foule. Hee that wil anchor on the ſouth-ſide of Ornay, muſt be mindful thereof, and anchor a little to the eaſtwards of the Tyde-Haven.

From the weſt-end of Ornay lyeth a great multitude of rockes weſt and by north, and w. n. w. of 3 leagues into the Sea.

Upon the outermoſt & weſtermoſt-end, lyet a great hig rock with many other ſmaller rocks about it. Halfe wayes betwixt this great rocke & Ornay lyeth another great rock, but not ſo high as the foreſayd weſtermoſt, from it lye of a multitude of rockes towards the outermoſt which fal dry at low water, but at hig water many lye under water. Theſe two great rockes are called by the French Les Caſquettes, & by the Dutch the Kiskaſſen, and by the Engliſh the Caskets. Cloſe by the weſt-end of Ornoy, towards the Caskets, lye other two great ranes or rockes, called the Barroches.

Caskets Barroches.

From the eaſt-poynt of Ornay to the eaſt-end of Garneſey (about to the ſouthwards of Ornay) the courſe is w. ſ. w. 9 leagues; but from the Caskets to the weſt-end of Garnſey ſ. w. and by ſouth, 6 leagues.

Road under Garnſey.

If you wil anchor under Garnſey (comming from the Caskets) then runne on to the northeaſt-poynt of Garnſey, and ſo farr to the eaſtwards of it, until you get ſight of the caſtle that ſtandet upon the rok on the eaſt-ſide of Garnſey. Or if you come about to the weſtwards of the Caskets, then goe on ſoutheaſt, or ſomewhat more ſoutherly, until the northeaſt-poynt of Garnſey be ſouth and by weſt from you, ſayle then towards it, til you ſhal come in ſight of that foreſayd Caſtle upon the Rocke. Bring that over the ſouth-poynt of Garnſey, and ſayle in upon that marke, betwixt the Iſland Arem or Harm, and Garnſey, until you come by the foreſayd Caſtle; betwixt theſe Iſlands it is on both ſides of rockes, where of you muſt take good heed, eſpecially on the larboard-ſide towards Arem, when you are come by the Caſtle, you may anchor within or without it, where you pleaſe, without the Caſtle in 12 or 13 fathom, or within the Caſtle (that is betwixt the Caſtle and Garnſey) in 6 or 7 fathom at low water. It doth flow there 6 or 7 fathom up and downe, which men muſt reckon upon.

Under the ſouth-ſide of Garnſey men may ride for n. w. north and n. e. windes. If you come from the weſt or from the Caskets, you muſt runne cloſe about by the ſouthweſt-poynt, called C. de Gruſe; and alongſt by the ſouth-ſide of the Iſland, wel halfe wayes the Iſland, & anchor there where you think good, in 18 or 19 fathom. If the wind ſhift to the ſ. w. or to the w. ſ. w. then you may runne about by the ſouth-poynt unto the foreſayd Caſtle, and anchor there eiter without or within it, as here beforeſayd. From the aforeſayd ſouth-poynt, lyeth of a little edge of rocks, whereof ſome rocks above, and ſome under water, theſe you muſt avoyd when you ſayle about by it.

South and by weſt ſ. ſ. w. about 8 leagues from Garnſey lyeth a great edge of rockes, more then a league great, called Rockeduves.

Roc duv

About 2 leagues ſ. e. from Garnſey lyeth the Iſland Sark, there men may anchor round about it in 25, 26 and 27 fathom. From the north-end of ſome Rocks, whereof ſome lye above, and ſome under water. At the ſouth-end here of lye alſo ſome rockes, but al above water.

Sar

Betwixt

Duytſche mylen 15 in een graet
Spaenſche mylen 17½ in een grae
Eng. en Fra. mylen 20 in een gr

Aurentite
Dinant
Complence
Cangalo
Selador
C. de Fayrola of C. de Late
S. Brieux
Bemit
La freye
Granville
Porterieux
de Sauſee
Oeſterbanck
Gaure
Mortefum
Buſkin
Monbe
Bryack
Eskeron
Canyn
Pickels
Buſ
S. Hilarius
Iarzee
C. de Verha
Pierebek
Rockeduue
Seven ylanden
Sarck
Arck
Garnzee
C. Grinſe
Ornay
Barroches
Caſquettes oft Kaſcaſſen
Poortlant
Slak
Ras van Poortlant
Warmouth
Goutſaart
Dortmuyen

De Cuſten van

BRETAIGNE,

Waer in vertoont wort alle ge:
legentheyt tuſſchen Caap de Ha:
gue en 't Eylant Heyſſant:
't Amſterdam,
By Iacob Theuniſz. op 't wa:
ter inde Lootsman.

BRETAIGNE.

Le fou
Crodun
Foudeuſſen
Colengier
Keechens
Landerneau
Breſtwater
Bagats
S. Matheus hoec
S. Matheus
Conquet
Conquets op
Blanc-hay
Le Bel
Heylant
Noord Vagels
Lamine
S. Ian de Dos
Morlions
Yorlaix
Oſſter gat
Weſter gat
S. Paul de lion
Plainpol
Roſcou
Oſſter gat van Roſcou
Ile Vas
Roche blanche
Obrurac
Perſel
Bacon
Le Iaune
Twyd hagels

Arc
and
Area

Pat
nofte

S.C
theri
nes b

Mar
kiers
Rock

Le
Beaf.

Beu
kin.

Eck
rof.

Gra
ville.

La
Shauf

Mou
de
S. Mi
chiel.

Betwixt Garnſey and Sarck lye two other little Iſlands, Arck and Arem, or Harm, there men may ſayle through betwixt them.

Arck and Arem.

The Iſland Jarnſey from Garnſey ſ. e. diſtant 7 leagues, round about this Iſland are good roades at divers places. Al alongſt the north-ſide men may anchor in 10 & 11 fathom. At the ſame north-ſide, ſomewhat within the weſt-poynt, lye ſome great rockes, a good wayes of from the ſhoare, called the Paternoſters, or Pierreleg. At the ſoudweſt-point lye many rockes which lye of a great wayes into the Sea, to the northwards of them, to witt, betwixt them and the weſtermoſt-poynt, at the weſt-ſide of Jarnſey men may anchor at divers place 10, 11 and 12 fathom. At the ſouth-ſide of Jarnſey is alſo a good road for a n. w. and w. n. w. windes. At the eaſt-ſide lyeth Saint Catherines baye, there is alſo very good roade for weſterly windes.

Pater noſters.

S. Catherines bay

The weſt-end of Jarnſey and Saint Maloes, or the Iſland Siſember before Saint Maloes lye ſouth and by eaſt, and north and by weſt, 8 or 9 leagues aſunder. About halfe way betwixt both right in the fareway, lye a great number of high rockes together, which containe in circuit in ſailing about, 7 or 8 leagues, called the Mankiers, they lye farre towards Jarnſey, ſome above and many under water, ſo that it is not without great danger to ruune throug betwixt Jarnſey and the Mankiers.

Mankiers Rockes.

When men wil ſayle through the Race of Blanckaert, bound for S. Maloes, they run commonly throug betwixt Sarek and Jarſey, may alſo ſayle to the eaſtwards of al the Iſlands and ſhoals alongſt the coaſt of Normandy, towards S. Maloes in manner as followeth.

When men come a little paſt the C. Voorha, they ſhal meet (thwart of the Iſland Jarſey) with three or foure high rockes, called Le Beuf, men may runne to the weſtwards of them, and ſo throug betwixt them and the Iſland Jarſey, or els to the eaſtwards of them alongſt by the mayn land, even as they wil, towards the riffe of Morteſaim, that lyeth upon the coaſt of Normandy ſ. ſ. e. 8 leagues from Cape de Voorha.

Le Beuf.

Over againſt, or thwart of the Riffe of Morteſaim, lyeth a rane of rockes lying eaſt and weſt more then a league in length, called Beufkin, at the eaſt-end many of them lye above, and at the weſt-end moſt of them lye under water. Men muſt ſayle throug betwixt them and the riffe of Morteſaim that are bound for Granville.

Beufkin.

Betwixt the foreſaid rockes Beuf and Beufkin, lyeth another great rane or rockes, called Eckerof, which lye offrom the ſoutheaſt-poynt of Jarſey towards Granville; you muſt leave al theſe rockes on the ſtarboard-ſide, and run alongſt to the eaſtwards of them.

Eckerof.

From the riffe of Morteſaim to Granville, the courſe is ſ. ſ. e. and from Buſkin ſ. e. 4 leagues.

Granville.

Cape de Voorha and Granville are two poynts that lye without the other land. About the ſouth-poynt of Granville lye two or three little rockes; along by them men muſt run in within a Pier or head, where the ſhips lye dry at low water. Betwixt cape de Hague, and Grandville men may ſee upon the land many little Houſes, Mils and Trees, as they ſayle alongſt by it. A little to the ſouthwards off the riffe Morteſaim ſandes a Church with two ſteeples, called Quotanſe. Al alongſt this whole coaſt is every where good anchorage in 6 or 7 fathom, eſpecially a little to the ſouthwards of Cape de Hague.

About two leagues weſt from the poynt of Granville lyeth another great rane of rockes two great leagues long, lying eaſt and weſt, called La Shauſee, betwixt them and the poynt of Granville men muſt ſayle throug that are bouud for Concalle or S. Maloes.

La Shauſee

About five leagues to the ſouthwards of Granville, in a great baye, lyeth an Iſland before the river of Avrantic about a league without the land, called Mount de S. Michiel, upon it lyeth a Caſtle, or little towne, called S. Michiel, with a high Tower which men may ſee at Sea. This Bay is to the ſouthwards of Granville, within the rocks of Concalle, very flat and riſing ground, from 13, 10, 8, 6 and 4 fathom to one fathom, ſo that at low water the Bay falleth ſo farre drye, that from the ſtrand men ſee no Sea nor water.

Mount de S. Michiel.

From Granville to the poynt of Concalle, the courſe is ſ. w. 5 leagues, from that eaſtwards lye three rockes, under which men may anchor in 10 fathom. For to ſayle to the towne men muſt run in betwixt the poynt and the foreſayd rockes. It is betwixt them both 8 and 9 fathom deepe. Before the towne it is ſhoales water. To the northwards of the Towne lye other two rockes, there men may alſo anchor under in 5 and 6 fathom water.

Concalle.

From the outermoſt rockes by the poynt of Concalle until you come before S. Maloes, the courſe is weſt and weſt and by ſouth 5 leagues.

Before the haven of S. Maloes, lyeth an Iſland, called Siſember, upon the weſt-end thereof ſtandeth a Mil, and upon the eaſt-end a Church with ſome little houſes being a Fiery, comming out of the Sea, you can but even ſcharce ſee the Church, but being within the Iſland you may ſee it better, becauſe it ſtandeth on the ſouth-ſide of the Iſland. A great ſhot of a caſt pece to the eaſtwards of Siſember lyeth a great high rock, called the Mew-ſtone: Betwixt them and Siſember it is al ful of rockes and ſtones, which at hig water lye moſt under water: there is a little channel betwixt them both, which the French-men uſe with thir ſmal ſhipping, throug betwixt the rockes, but is not to be uſed with a great ſhipping, neither by them that are not very wel acquainted with it.

S. Maloes. Siſember.

Meuwſtone.

Betwixt the Mewſtone, and ſome other rockes to the eaſtwards off it lyeth in a channel ſouth and ſouth & by eaſt called la Congie. For to ſaile in there you muſt runne in cloſe aboard to the eaſtwards of the Mewſtone, ſ. e. and by eaſt rigt in with the towne, until you bee got then in two third parts of the diſtance (betweene the Mewſtone & the Towne) from the Mewſtone, and are one third part of the diſtance from the Towne, that is when the Mewſtone is twice ſo farre from you as the Town, then you ſhal ſee by the n. w. poynt of the Town two great rockes, about a caſt pece ſhot from the foreſayd poynt; upon each rock ſtandeth a little houſe, the outermoſt is the ſmalleſt, and is called the little Bee, the neerſt to the Towne is the greateſt, and is called the great Bee, ſayle then towards them, and run in about them within a cables length of them, but keepe that courſe ſo long, until that the little Tower (that ſtandeth a little to the ſouthwards of the Towne upon the poynt) come over the Tower of Bore a little to the eaſtwards of Saledoor, keepe them one over the other, and ſayle ſo in unto the ſouth-end of the Town, where the Mils doe ſtand, then you ſhal ſee there upon the rocks two beacons, run betwixt them throug at hig water, until you come within the towne, at the eaſt-ſide, the ſhippes lye moored with foure cables, dry at low water, two faſt on the Towne, and two upon the ſand. Betwixt theſe two foreſayd beacons, to the ſouthwards of the Town, and thereabouts, is the ground, ſharpe, rockie and ſtonie, therefore men muſt take heed nor to ſtay there at low water, or to ground there, but within on the eaſt-ſide of the Town it is cleane ſandy ground, there may the ſhippes lye a ground without danger.

La Congie

The little & great Bee.

A little within, or to the ſouthwards of the foreſayd rock the little Bee, men may anchor in 5 or 6 fathom water at low water, ſo that the tower of Bore commeth little to the eaſtwards of the little tower upon the poynt to the ſouthwards of the Town, that road is called by the French La Rance, there men commonly firſt anchor, and ſtay for high water, for to goe in about to the ſouthwards of the Towne. It floweth here at S. Maloes, and thereabouts 7 fathom up and downe with an ordinary tyde.

The Road la Rance.

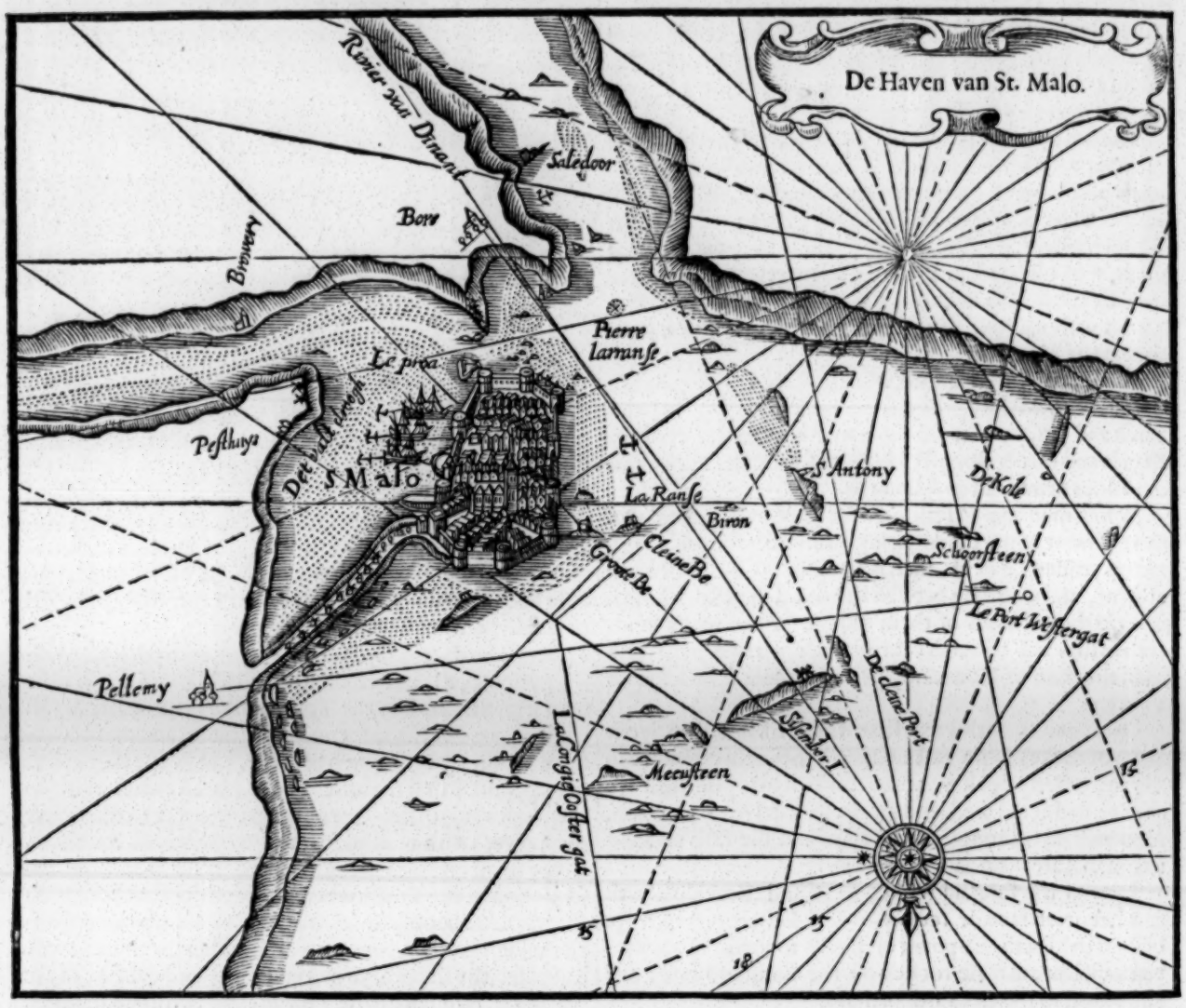
From the weſt-end of Siſember, lye off alſoo a great many rocks alongſt to the weſtwards, more then a great ſhot off caſt peece, at the end of them goeth in the Weſter-channel of S. Maloes, eaſt and by north in. For to ſaile in there, you muſt look out for a ſharp little Tower, that lyeth ſomewhat to the northwards or to the eaſtwards of Sint Maloes, within the land called Pallemy, when you have brougt that eaſt and by north from you, then you ſhal ſee upon the ſhoare right againſt it, a great blak rocke, which for Blackeneſſe ſheweth it ſelfe without al the other Rockes thereabouts, and thereby is very eaſy to be knowne: Bring that rocke and the foreſayd little Tower one to the other and ſayle ſo rigt in until you come thwart of the Iſland

Siſember, or els that the little Tower (upon the point to the ſouthwards of the Towne) come to the Tower of Bore, to the eaſtwards of Saledoor, ſaile then towards the roade of La-Ranſe to the ſouthwards of the little Bee; or els if it be hig water, you may run in upon the markes, & then in about to the ſouthwards of the Towne, as here before is ſayd.

When you ſaile into this weſterne channel, you ſhall leave on the ſtarboard ſide a high rocke (called the Schoorſteen) with more other roks to the weſtwards of it, which at high water are moſt of them overflowne. On the north ſide, that is on the larboard ſide, lye alſo many rockes, where of many of them are overflowne at high water, & alſoo many remaine above water.

Yet a ſoutherne channell lyet in by the land to the ſouthwards of the rock of S. Antony, upon marks that men may ſee a ſtearne the ſhip, but it is not uſed but with ſmall ſhips. A ſoutherne channel

S. MALOES.



Stony banck. ABout halfe wayes betwixt the weſterne channell of S. Maloes, & C. de Farela, lyet a ſtony bank under water. A little to the weſtwards of Cape de Farela, lyeth a great rock. When you will ſayle from C. de Farela towards Saint Maloes, and that you keepe the foreſayd rock right upon the poynt of Farela, you ſhall ſo (without faile) ſayle upon the Stone-banck: but if you keep the rock hidden under or behind the point, then you ſhall ſayle alongſt to the ſouthwards of it. Or elſe if you keep it without the point (ſo that you may ſee through betwixt it and the point) then you ſhall ſayle alonghſt to the northwards of it. The foreſayd rock is a good mark for to know Cape de Farela by.

Foure leagues weſt-wards, from Sint Maloes lyet a great Sanbay, where men may lye landlockt for al winds: Men uſe to anchor within a great rock, rigt againſt a Mill and ſome trees.

C. Farela. About two leagues n. w. from that Sand-bay lyeth the Cape de Farela, which is alſo called Cape de Late, after the Caſtle de Late, that ſtandeth to the eaſtwards of the point, there is a good Roade for weſt and ſouth-weſt windes.

Oyſter banck. Two great leagues northweſt from the entry of the Haven of S. Maloes, lyeth the Oyſterbanck, there under it men may anchor in 6 or 7 fathom.

I. Briak To the weſtwards of Cape de Farela unto the northend of the Iſland Briack, the courſe is w. and by n. 9 or 10 leag.

S. Brieux and S. Benit. Two leag. from the land w. from te Cape lyeth a great rane of roks above water. Between the foreſayd C. & the Iſland Briack lye the Havens or Rivers of S. Brieux and S. Benit.

The Iſland Briack is two leagues longh, & lyeth ſ. ſ w. & n.n.e. when you kome from the eaſt, you ſhal ſee two Mills upon it, and betwixt them a high round hill, with a little houſe upon it: you may ſayl round about this Iſland, and may make roades on every ſide where you will, although round about it here and there lye ſome rocks, yet it is all over good anchor ground. A good wayes off from the n. e. point lyeth a rock, called Souffe, & at the northend lyeth a ledge of rocks under water, where of you muſt take heed.

A great league w. ſ. w. from Briack, 3 or 4 leagues a ſeaboard the land, lye the out rockes, called the Pickeles, men may ſayle round about them alſo, but to the eaſtwards of them towards the main land, lye many ſuncken rockes.

Port blank. Foure leagues to the weſtwards of Briack lyeth the Porth Blanck upon a great river, called Lantrilliers, to the eaſtwards of this haven lye of many out-rockes. Landrilliers.

Sept Iſles. To the weſtwards of Port Blanck, lye the Sept Iſles, or ſeven Iſlands, lying from the Pickels diſtant five leagues eaſt and weſt. A league to the ſouthwardes of them lyeth the Green land, there you may ride round about it. Betweene the ſeven Iſland you may not ſayle through, but to the ſouthwards of them, betwixt them and the Green Iſland goeth a broade channell through. From the eaſtermoſt Iſland lyeth off a fowle riffe to the ſouthwards, upon the outermoſt end of that riffe lyeth a rocke, as a good marke for to ſayle about the riffe. Northweſt from the weſt-end of the ſeven Iſlands, lyeth alſo a ſuncken rock, which at low water may be ſeene. Men may alſo ſayle alongſt Greene Iſland.

alongſt by the coaſt from Port Blank, within to the ſouthwardes of the Green Iſland, and come out againe into the Sea to the weſtwards: from thence northweſt of into the Sea, lye the Triacle-pots, there are great feare full out-rockes, which lye ſpred wyde & broade weſt ſouthweſt from the ſeven Iſlands, & 4 or 5 leagues a Seaboard the land.

Triacle Pots.

Betwixt the Triacle-pots and the ſeven Iſlands lyeth the River of Laminoe, to the weſtwardes of the Greene Iſland: For to ſayle in there, men muſt take good heed of the north-eaſt-poynt, which is fowle.

River Laminoe.

Thwart of the ſeven Iſlands, upon the maine land, ſtandeth a Church with a high ſteeple, called Our Lady of the Clearneſſe, thereby men may know them.

Thwart of the Triacle-pots ſtandeth alſo a high Tower thereby men may know when they are neere them, but it muſt be very cleare weather before men can wel diſcerne it upon the land.

Hee that commeth by night or darke weather from the Fourne, or Uſhant, and is bound to S. Maloes, let him not goe with a ſoutherly winde, to the eaſtwardes of e. n. e. or n. e. & by eaſt with a weſterly winde, ſo long until hee hath the length of the Triacle-pots, hath they bee on his broad ſide. The Flood falleth ſ. e. within the Triacle-pots and the 7 Iſlands, & ſhould by nigt eaſily draw a ſhip towards them. By day, or when there is ſight, there is no ſuch danger.

Within the Triacle-pots lyeth the tyde-haven of S. John de Doy, 2 leagues to the weſtwards of the Green Iſland, & two leagues to the eaſtwards of Morlions, men may ſayle from thence throug the Rockes unto Morlions, and anchor in 5 and 6 fathom at low water.

To the weſtwards of the Triacle-pots lyeth a great rock, the eaſterne entry of Morlions lyeth from in ſ. w. & by ſouth diſtant 2 leagues, but the weſterne entry lyeth from it w. ſ. weſt & weſt & by ſouth 4 or 5 leagues, that goeth in by a great long ragged rok. This entry men may ſaile in ſouth & ſouth & by weſt unto the caſtle of Morlaix, being about the caſtle they may run throug the roks againe to the eaſtwards, and runne out againe at the eaſterne entry n. n. e. and north and by eaſt into Sea, according at the tydes ſhal be, the flood commeth there out of the n. w.

Morlions.

Morlaix.

If a man would goe from Morlaix to Morlions, hee may goe on eaſt throug the rockes, & ſo ſaile to it: It is al broken land, & there remaine that low water 5 fatum depth.

If you are bound to S. Paul de Lion, you muſt run rigt with the great rok, with the two horns or Sadle, & ſo cloſe alongſt by it: being paſt it, edge to the land upon the ſtrand lyeth a village, called Plempol, ſaile rigt with it, and alongſt by it, to the eaſtwards of it goeth in the River. Theſe are al tyde-havens, but betwixt the rockes of the Morlions, & the Ilands Bay, it is at low water deep enoug for to ſave a ſhip.

S. Paul de Lion.

The land of S. Paul de Lion a bouble land, upon S. Pauls Church ſtand two ſharpe ſteeples. The Iſland Iſle de Bas, lyeth thwart before it, upon it ſtandet two ſtakes, to ſee to a far of like mils. Upon the eaſt-end of that Iſland lyet a very high ragged Rock, when you are to the eaſtward of this rok, you ſhal ſe two ſharpe ſteples a litle one from the other theſe are the ſteples of Plempolle: you may alſo then ſe the caſtle of Morlaix, lying ſ. e. from you, upon a hig Rock.

Iſle de Bas.

The foreſaid outermoſt long ragged Rocke of Morlaix, lyeth from the top of the Iſland Iſle de Bas, eaſt and eaſt and by ſouth 3 or 4 leagues. Men may ſaile alongſt by the mayne land within and throug theſe Rocks, until they come to the ſeven Iſlands, they are al great Bayes, where in moſt places is a good anchor ground.

Port blank. Landilliers. Sept Iſles.

Five great leagues north and by eaſt of Iſle Bas and ſ. w. and by weſt 27 leagues, from the Caskets, lyeth a dangerous Rocke or Cliffe, called Roche Blance, and lyeth from ſeven Iſlands w. n. w. 9 leagues.

Roche blanche

Within the Iſle de Bas lyet the town of Roskow, you may ſaile into the Haven of Roskow on both ſides of the Iſland.

Roskow.

For to ſaile into the eaſterne channel, when you are paſſed by the hig Rocke with the Saddle, or two hornes called Le Taureau, and come by the land, betwixt the eaſt-poynt of the Iſland, and the poynt of the mayne land over againſt it, you muſt ſaile ſtil keeping the middle of the channel. It is in this channel 7 and 8 fathom deepe. Being come within the point of the Iſland, you muſt runne in about by it, weſt and by ſouth and weſt on, until you come about half wayes within the Iſland, and anchor there in 8 or 9 fathom. And then Roskow ſhal lye ſouth & ſouth & by eaſt from you.

If you wil ſayle into the weſterne channel, you ſhal ſee to the weſtwards of it, cloſe by the mayne land two great long Rockes. From the point of the mayne land, a little to the eaſtwards of the eaſtermoſt long Rocke, lyeth of a riffe from the land, which maketh the weſt-ſide of the channel, you muſt runne in ſ. e. betwixt that riffe and the weſt-poynt of the Iſland, and when you come within the poynt of the Iſland, you muſt edge up n. e. unto the middeſt of the Iſland, and anchor there as here before is ſayd.

From Iſle de Bas alongſt to the Fourne or Uſhant lyeth the Coaſt w. ſ. w. 16 leagues.

From the Iſland Iſle de Bas unto the Fourne, (the outermoſt or weſtermoſt-end of the maine land of Britaigne) the courſe is w. ſ. w. & w. & by ſ. 13 leagues. About halfe wayes betwixt them both lyeth Obbevrack, or Abberwrack.

Abberwrack.

About a league n. w. without the Rockes of Obbevracke or Abberwracke lyeth a rane of Rockes under water. They that by nigt wil ſayle or turne to windwards from the Fourne or towards the Fourn, let them not come thereabouts nearer the land then 45 fathom.

The Fourn.

A league to the eaſtwards of the Fourne, & al alongſt the coaſt even unto the Fourne, lye many long blak ragged rockes, in many places appearing like Villages, theſe are called the Ovens, within them on the mayne land (which is not very hig) men ſhal ſe (ſayling alongſt by them) many white ſand-bayes, & here & there ſome little houſes, whereby the foreſayd land thereabouts is very eaſy to beknowne.

The Fourne and Uſhant lye w. ſ. w. and e. n. e. diſtant two great leagues. Uſhant ſheweth it ſelfe at Sea at the ſouth-end low, and at the north-end going up ſloaping, upon the midſt of it ſtandeth a little flat Tower, by which markes it is good to be knowne.

Uſhant.

Of the Tydes and Courſes of the Streames.

At C. de Hague by the ſhoare, a ſouth & by eaſt Mone maket hig water.

In the Race of Blankert a north and by eaſt, & ſouth & by weſt Moone. The Flood fallet throug the Race n. e. and the Ebbe ſ. w.

In the Iſlands alſo a north and by eaſt, and ſouth and by weſt Moone maketh a ful Sea. Men cannot wel reckon the tydes there: becauſe they have divers courſes about the Iſlands, but for the moſt part n. e. and by north. A quarter of the tyde, the flood falleth thwart into the Caskets

In Garnſey a north & by eaſt, & ſouth & by weſt Moon maket ful Sea.

At Concalle and Granville a w. n. w. Moone.

At S. Maloes an eaſt and weſt Moone maketh hig water.

The flood falleth in there at the Weſterne Channel, and goeth out againe at the Eaſterne Channel, men muſt reckon there upon when wil ſayle into theſe Channels.

From the Iſland Briak in the bay of Benit, the flood fallet ſ. e. & w. n. w.

And the eaſt-ſide of the Iſland Briak in the Road ſ. ſ. e. An eaſt and weſt Moon maket there the higheſt water.

Betwixt the Iſland Briack and Garnſey, a w. ſ. w. Moone maketh ful Sea, the flood runneth there e. ſ. e. and the Ebbe w. n. w.

On the Coaſt, & within the Caskets, the tyde runneth continually againſt the Sunne, ſo that it is there never ſtille water.

Betwixt Sept Iſles, or the ſeven Iſlands, and Garnſey in the fareway a w. ſ. w. Moone maketh ful Sea.

Betwixt Briak & the 7 Iſlands, an eaſt and by north & weſt and by ſouth Moone maket ful Sea. The flood fallet there eaſt & eaſt & by ſouth.

Betwixt the 7 Iſlands and the outer Rockes of Morlions, the Flood fallet in ſ. e. within the Triacle-Pots towards the Green-Iſland, but in the fareway in the offing, eaſt and eaſt and by north.

At Morlaix and S. Pauls a weſt & by ſouth Moon, maketh the higheſt water, but in the fareway in the offing thwart of it, a ſ. w. & by w. & w. ſ. w. Moone.

At the Iſle de Bas maket hig water a weſt and by ſouth Moone.

In the fareway there in the offing, the Flood falleth e. n. e. and the Ebbe w. ſ. w. & ſo likewiſe from thence al alongſt the Coaſts of Bretaigne, unto the Fourne of Uſhant.

At Abberwrack an e. n. e. and w. ſ. w. Moone maketh ful Sea without Uſhant a w. ſ. w. and e. n. e. Moone, and within the Trade a ſ. w. and by weſt Moone maketh ful Sea.

Of the Depths about theſe Places, and in what Depths men may ſee the Land.

Upon cape de Hague ſtandeth a Caſtle, with a little turreth; a little to the eaſtwards of it in the land ſtanderh a ſharp Tower. Two leagues to the eaſtwards of it lyeth Sherboroug with a flat ſteeple.

The Iſland Ornay is upon the weſt-end high with a ſteep going down poynt: The eaſt-end is hilly, or with Hommocks, but lower then the weſt-end, in ſayling by it, men may ſee upon it a Tower or two, with ſome mils. Upon the north-ſide of the Iſland lyeth a white hil like a Sand-hil.

To the northwards of the Caskets, two leagues from land it is deep 45 and 40 fathom.

Betwixt the Caskets and Garnesey it is 35 & 40 fathom deep, most all stony ground.

Northwest about 4 leagues from Garnesey is a pit where it is 80 or 90 fathom deepe, els it is there abouts 40 fathom deep.

Betwixt Ornay and Jarsey it is deep 20 and 25 fathom.

In the fareway of Jarsey, Rockduve & the Isl.nd Briack, it is deep 20 & 25 and 30 fathom.

About the Triacle Pots alongst the coast it is 45 and 50 fathom deep, in such depths men may see the land there abouts. By night it is not good to come nearer that coast and the seven Islands, then in 45 fathom.

Thwart of S. Paul de Lion, and the Isle of Bas, 5 leagues from the land it is deep 45 and 50 fathom.

Thwart of Abberwrak 5 leag. from the land, it is deep 50 & 55 fathom.

The Backovens, or the land of the Fourne, men may see in 50 fathom.

Ushant being about south from you may see in 50 fathom.

Courses and Distances.

From C. de Hague to the outermost of the Caskets w. & by north	9 leag.
From the Caskets to Beachy northeast and by east	36 leagues
From the Caskets to Wight northeast and by north	20 leagues
From the Caskets to Portland, north and by west	13 leagues
From the Caskets to the Steart west northwest	21 leagues
From the Caskets to Silly west somewhat northerly	54 leagues
From Cape de Hague to Cape de Voorha, south and by east	7 leagues
From Cape de Voorha to Granville, south southeast	9 leagues
From Granville to Mount S. Michael, south southeast	5 leagues
From Granville to the poynt of Concalle, southwest	5 leagues
From the poynt of Concalle to the Easter-channelle of S. Maloes, west & west and by south	5 leagues
From the Island Sisember, before S Maloes unto C. de Farrele w.	3 or 4 lea.
From C. de Farrele to the Island Briace, west and by north	9 leagues
From the Island Briack to the Pickelles, west and by south	2 leagues
From the Pickels to the seven Islands, west southwest	5 leagues
From the seven Islands to the Triacle Pots west southwest	3 leagues
From the Triacle Pots to the Isle de Bas, west southwest	9 leagues
From Isle de Bas to Ushant west southwest	16 leagues
From cape de Hague to the west-end of Jarsey betwixt Sarck & Jarsey throug, f. f. w. and southwest and by south	11 leagues
From the Caskets to the westend of Garnesey, f. w. & by south	5 or 6 leag.
From Garnesey to Jarsey southeast and by east	7 leagues
From Roche Blanche to Caskets, n. e. and by east	27 leagues
From Roche Blanche to Isle de Bas, south and by west	5 leagues
From Garnesey to S. Maloes, f. f. e.	16 leagues
From the south-end of Jarsey to S. Maloes, south & by east	8 or 9 leag.
From Garnesey to the Rocks Rockduves, f. f. w.	8 or 9 leagues
From Rockduves to Manckiers east and by south	9 or 10 leagues
From Rockduves to Cape de Farella, southeast	10 leagues
From Rockduves to the Rock Camine south and by west	4 leagues
From Rockeduves to the Island Briack south & by west and south	6 leag.
From Garnesey to the seven Islands southwest	14 leagues
From the Caskets to S. Paul de Lion f. w. somewhat westerly	30 leagues
From the Caskets to the Fourne or Ushant f. w. & by west	46 leagues
From the Caskets to the Lizard west & by west & by north	39 leagues
From Garnesey to the Lizard west and by north	37 leagues
From the seven Islands to the Lizard n. w. & by west	32 leagues
From the seven Islands to the Steart n. & by w. somewhat westerly	24 leag.
From the seven Islands to Portland n. n. e.	32 leagues
From S. Paul de Lion to the Lizard n. w. and by north	28 leagues
From S. Paul de Lion to the Steart north & by east	28 leagues
From S. Paul de Lion to Portland n. e. and by north	39 leagues
From Isle de Bas to the Fourne w. f. w.	12 leagues.

Heights.

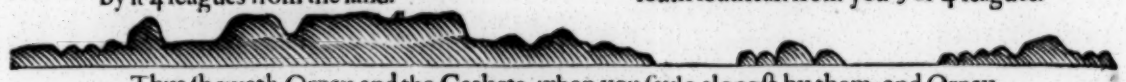
The Caskets lye in	49 degrees	48 minutes
The seven Islands or Sept Isles in		49 degrees
Ushand lyeth in	48 degrees	30 minutes.

How these Lands doe shew themselves at Sea.



Thus sheweth Ornay, when you sayle alongst by it 4 leagues from the land.

Thus sheweth Ornay, with the Caskets, when it is south southeast from you 3 or 4 leagues.



Thus sheweth Ornay and the Caskets, when you sayle alongst by them, and Ornay is southeast from you 3 or 4 leagues.



Garnsey, being e. n. e. from you, sheweth thus.

S. Paul de Lion.

Thus sheweth Garnsey, when it is thwart from you about 4 leagues.

Obbevrack.

La Four.



Thus sheweth the land betwixt S. Paul de Lion and the Fourne, when you sayle alongst by it 4 leagues from the land.

The third Demonstration,

Where in are Delineated

The Coasts of England, from Beachy to Portland.

New-Haven.

TO the westwards of the poynt of Beachy, thwart of the west-end of the seven Cleeves, rigt against the chindle, where men run alongst by into New-Haven, men may also anchor in 7, 8 or 9 fathom.

A league and a half to the eastwards of the poynt of Beachy, neareast east northeast from the poynt lyeth a little sand, upon which there is at low water and springh-tyde scarce 2 fathom.

At the west-end of the seven Cleeves lyeth the River of Cuckmer-haven, or New-haven, which hath two entries, the westermost entry lyeth in by the west-land, but is not to be used, but onely with very small shipping, it falleth altogether dry, the eastermost is commonly the best, and lyeth n. w. and by west in, there is at high water with a common tyde not more then 7, and with a spring-tyde 14 or 15 foot water; within, the Ships lye every tyde dry: But before the village they remaine a Float there they more with foure Cables fast on two green shoares. Upon these entries men cannot well make any reckoningh, they keep no certaine depth, when it bloweth a storme out of the south, they are oftentimes cast to with a chindle, and opened againe with a Freshut.

Shorum is a tyde haven, where is at high water and spring-tydes 18 foote water, but at low water, there remaineth no more then three foot water, so that then it floweth 15 foot up and down with a common tyde at high water there is 12 foot at low water 3 foot depth. The Town Shorum lyeth a little English mile within the Haven, ships (that draw but 8 or 9 foot water) can lye a Float a little beneath the Towne at low water, or else they lye dry every where. Shorum

When you come from the eastwards from Beachy or New-haven alongh by the shoare, you may see open into the Haven, before you come thwart of it: But commingh from the westward, you shall not see it open before you come right before it, because the west-point lyeth somewat further out then the east-poynt. From the west-poynt runneth off a little tayle, but a high water you may runne in alongst over it, otherwise you must run in by the east-shoare. Upon the east-poynt stand two beacons, which you must bring one in the other, and run in so right with them, untill you come by the north-shoare, and then in alongst by the foresayd north-shoare.

At Shorum sometimes there are builded many great Ships of 3 or 400 tunnes.

About

horum

Duytsche mylen 15 in een graet

Spaensche mylen 17½ in een graet

Eng: en Fra: mylen 20 in een graet

E N G E

Pole

Hampton

Yarmouth

S. Andies Land

Slot

Slot

't Ras van Poortlandt

Poortlandt

Sandwich bay

Deale

Calshot

Hurst cast

Newton

S. Helens

De nadden

Eylant Wicht

Wolferts hoft

Calquettes
Kascaßen

Barroches

Ornay

Ornay

't Ras van Blanckart

De Custen van

ENGELANDT

Tusschen Fierley en Poortlant; ook hoese van Ornay gelegen zyn.

t Amsterdam.

By Iacob Theuniß. op't water inde Loots man.

A N D

Chechester

Arundel

Bramber

Selsey

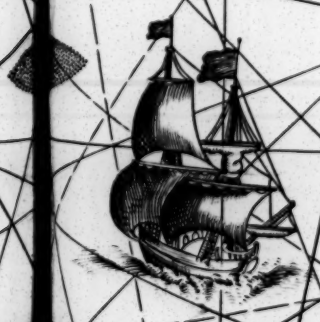
Newenerhaven

Dieppe

Wecombrug

Brelier

45



About 6 leagues to the westwards of New-haven lyeth Arundel, a tyde-haven, where a ship may go in at half Flood, you must goe in there by the west-land northeast in. In the entry it is two, and betwixt the two lands 3 fathom deep at high water: But within the Haven remaineth at low water 4 & 5 fathom: There you must anchor before the village.

Five leagues west southwest from Arundell, and 13 leagues west and by south somewhat westerly from Beachy, lye the bancks or shoals of the Owers under water, a great league and a halfe a Seaboard the land.

About 2 leagues east northeast somewhat easterly from the south-side of the Owers, and two little leagues south from Arundell lyeth a shoale of Rocks and chindles, called Eastboroug-head, as great as an anker of land, which fallet (at low water and spring-tyde) dry, otherwise it commeth not above water, close to it, it is 15 fathom deep. They that sayle of from the Haven of Shorum, and are bound to the westwards, must not go more westerly then south-southwest untill they come in 18 fathom, before they set their course more westerly, for feare of this shoale. About an English mile northwest from this foresayd shoale, lyeth also a suncken Rock, whereupon at low water it is no more then 5 or 6 foot water.

About halfe wayes, betwixt Arundell and Selsey, runneth of a ledge of Rocks thwart to the southwards from the shoare, about an English mile and a halfe into the Sea, called the Bogners, whereof some of the Rocks fall dry at low water, but the outermost are alwayes under water.

The shoals or bancks of the Owers, lye about 4 leagues to the eastwards of Wight, & lye of league & a halfe from the land, thwart of them standeth a Tower in the land, when that is north northwest from you, then are you thwart of the southermost-part of the shoale; And if you keep the Culver-cliffe of Wight west and by north, and west northwest from you, comming either from the east of from the west, you can take no hurt of the Owers, you may run alongst by them in 12 fathom upon your lead, without danger. If you sayle away from the east-end of Wight, east and by north, and east northeast, you shall run in 12 fathom alongst over the east-end of them. He that is there well acquainted, may also sayle to the northwards of them, throug betweene the land and the Owers.

Betwixt the Owers and Portsmouth goeth in a great sound or Haven, within lyeth the Town of Chichester.

On both sides of the Island Wigt men may sayle within it, and there come to anchor either under S. Ellens or before New-port where they will.

For to sayle into the eastwards of Wight you must bring the easterne castle that lyet to the eastwards of Portsmouth over the Lyme-kilne (that is, a white spot in the land to the northwards of that castle) and keepe them so one over the other, untill that the Culver-cliffe come, within or under the northeast-point of Wight. Then bring the Lyme-kilne over the east-end of Portsmouth, and keepe them so untill that the castle in the westwards of Portsmouth come to the wood: Thus doing you shall come neare neither plate nor sand, to take any hurt of them, & you shall come so by little before S. Ellens Church. When the Church commeth two ships lengths within the red poynt, then you shall not come to neare the riffe at the point. Or else if you cannot see the Lyme-kilne, then keepe the Castle to the westwards of the Culver-cliffe, untill that S. Ellens Church commeth a ships length without the poynt of the Island, goe then boldly northwest in, and you shall not come to neare the riffe; And then bring the square Tower betwixt the east-end of Portsmouth, & the Castle: When the castle to the westwards of Portsmout commeth to the east-side of the Wood, then you shall not (as here before is sayd) come to neare either the plate or the sand, to kane any hurt of them.

When the eastermost white spot standeth a ships length to the westwards of the Castle, then you are to the eastwards of the riffe, and when the Culver-cliffe is covered or hidden behind the northeast-point of the Island, then are you also within the Riffe. The marckes of the little plate are these, there standeth a square Tower within the land, and a Castle on the water-side to the eastwards of Portsmouth, thwart from it lyeth the foresayd Lime-kilne: when that commeth to the eastwards of the foresayd castle, so that you may even see throug betwixt them both, then are you upon the little plate which at low water is not deeper then 10 foot: then standeth the castle to the westwards of Portsmouth at the west-side of the Wood. But when the foresayd square Tower commeth to the west-side to the foot of the castle, and the castle by west Portsmouth to the west-side of the Wood, there it is deepe at low water upon the little plat 12 foot.

When the square Tower standeth betwixt the east-end of Portsmouth, & the castle even betwixt the Lymepit & the Tower, & the castle by west Portsmouth in the west-side of the Wood, there it is at high water, 10 fathom deepe.

When S. Ellens Church lyeth southwest & by west from you, then lyeth the southeast-end of the Plate northeast and by north from you, and the west-end north and by east.

From the point of the Roade of New-port eastwards lyeth a broad sand alongst the shoale, called Nomansland, which falleth allmost dry at low water, it is so steepe, that halfe a Cables length off from it, it is twelve fathom deepe: upon the high land of Wight there abouts stand two or three mills. If you come nearer the shoare, that the foresayd mills bee hidden behinde the foresayd high land, you shall not misse to come a ground against that foresayd sand, but so long as you can see these mills you shall goe cleare of it. Nomansland.

The Roade of the Cowes is the best Roade in Wight. Over against, betwixt that and Calshot Castle, lyeth a hard sand neareste the north-shoare, lying from thence to the westwards alongst the fareway, allmost so farre as thwart of New-ton, called the Brambles: at low water & spring-tydes is falleth allmost dry, and then the Sea breaket much upon it: to the northwards of it goeth also a channel throug, but it is not to bee used, buth with small shipping. The Brambles.

For to sayle in at the west-end of Wight, you must runne right in with the Needles, (they are high sharpe Rockes as Masts lying at the West-end of Wight) bring then the innermost-point of Wight, or the Castle that standeth upon the chindle over against that point, called Hus castle a little without, or to the northwards of the Needles, sayle in there upon, untill you come to the Needles, leave them then on the starboard side of you, and runne in within a Cables length by them for to avoyd the bancks which lye of from the chindle to the northwards of the Needles, of the West-end of Wight almost to the Needles. Betwixt the bancks called the Swingels, and the Needles, it is not very broad, and at low water five fathom deep. When you sayle in here, you must cast your tydes well. The foore Flood falleth strong upon the bancks. When you are then come within the Needles, then edge a little more of from the shoare unto Hus Castle that standeth upon the chindle, for to avoyd some Rocks which lye alongst by the Island under water. Being come within the Castle or Chindle, there it is wyde and broad, leave two third parts of the channell on the larboard side, and one third part on the starboard side, sayle so untill you come before the village New-ton, and anchor there in nine or tenne fathom, or else sayle forth (if you will) about the point of the Cowes, and anckor there before the Haven of New-port in 10 or 12 fathom, there is the best Roade, and the best lying of all the Roades in Wight. The Haven or Roade before New-port lyeth from the foresayd Hus castle upon the Chindle northeast & by east, and east northeast about 2 leagues asunder. For to sayl in at the Needles.

From the Needles of Wight, west and by south about 3 leagues, lyeth the point of S. Albons-land, called Pevarell-point, from it lye of some little Rocks to the eastwards. A little to the northwards of that point is a Bay, called the Bay of Sandwitch, there is a good road for them that are bound to the westwards; If you wil goe to ryde there comming from the westwards, you may take the sounding of Saint Albons-land, and run aboard the point in four or five fathom at a halfe Flood, and you shall take no hurt of those little Rocks. Being gotten about the poynt, edge by it up to the westwards towards Sandwitch. A little to the northwards of Sandwitch in the Bay, lyeth a round Hommock, and thwart of it somewhat within the land stan- Pevarel poynt. Sandwitch-bay.

ſtandeth a Mill, bringh that Mill to the ſouthſide of the round Hommock, & ſayle ſo in untill you come in 4 or 3 fathom anchor there ſo deepe or ſhoale as you will, there it is good lying for ſouthweſt winds.

A little league north & by eaſt from the foreſayd poynt, rigt weſt from the Needles of Wigt, lyeth another poynt, called Handfaſt poynt, to the northwards of it lyeth a little Towne, called Studland, before it is alſo a good road. Upon the outermoſt part of that poynt, is a hole through the land, where men may ſee through, and a little without the poynt ſtandeth a high ſteepe rocke like a Maſt, allmoſt like the Needle at the weſtend of Wight. For to come to ride before Studland: you muſt ſayle about the ſecond poynt, with the hole or the ſteepe rocke, in 4 or 5 fathom and goe in weſt northweſt towards Studland: a little to the ſouthwards of it lyeth a little valley, bring that weſt ſouthweſt from you, & goe towards the ſhoare, in 4 or 3 fathom and halfe, there is the beſt roade, and lying there, you may ſee the foreſayd hole in the poynt.

Handfaſt poynt.

Studland.

A league to the northwards of that foreſayd point with the hole, lyet the haven of Poole, for to ſaile in there, comming about the foreſayd ſecond point with the ſteepe rocke, you muſt goe on n. w. or ſomewhat more northerly, and then you ſhal ſee rigt a head of you, a hig flat hil, which ſtandeth higher then any other land there abouts, keepe that betwixt two ſhoares, & run in ſo right with it. If you muſt turne to & againe, then ſpare not to uſe your lead, and run not further over to the weſtwards, then that the flat hil come to the weſtland, ſo ſoone as it beginneth (as it were) to touch it, you muſt caſt about, or elſe you ſhould be faſt a ground: And after you have caſt about, run not further over to the eaſtwards, then that the foreſayd high flat hill commeth even to the eaſt ſandhill, which is a high, gray, ſharp ſandhil, lying at the eaſt ſide. If you keepe theſe foreſaid marckes in this manner, you ſhall have there going in at halfe flood water enough, there remaineth upon the ſhoaleſt at low water, 10 and 11 foote, but it floweth there no more then 5 foot up and downe. It floweth there twice in a tyde. A ſoutheaſt and n. w. Moone maketh there full ſea: Alſo a ſouth and by eaſt and north and by weſt Moone once more, that commeth to paſſe by reaſon of the fore-ebbe that commeth out of Wight. When you come within the entry, go then n. n. e. on, and keepe the beacons that ſtand on the eaſt-land on the ſtarboard from you, and runne indifferent cloſe alongſt by them. The ſhoares are on both ſides ſteepe, and the channell is not wide, without the channell it is ſhoale or flat. This is Pilots water.

Poole.

From the weſt-end of Wight to the point of Portland, the courſe is weſt ſouthweſt, 11 leagues, but from Dunnoſe, the ſouthweſt poynt of Wight, weſt and by ſouth 13 leagues.

Portland.

If you will goe to anchor under Portland, comming from the weſt, then come within two cables length, or a ſhot of a caſt peece about by the poynt of Portland, and being come about the ſecond point, edge up to the weſtwards untill you come before the caſtle, and anchor there in 7, 8, 9, 10 or 11 fathom, ſo that the point of Portland doe lye ſ. & by eaſt, & ſ. ſ. e. from you, there you ſhall lye landlockt for a ſ. & ſ. & by eaſt winde. With a ſ. w. and a ſ. ſ. w. winde, men muſt be very mindfull of terrible rippeling of the race of Portland, which beginneth a little to the weſtwards of Portland, and endeth a little to the weſtwards of S. Albons. The ground in that race is alſo very uneven, & ſhoale ſometimes 7, otherwhiles ten, and alſo 15 fathom deepe.

Rode under Portland.

About a league to the northwards of the road of Portland lyeth a little Towne, called Waymouth, with a tyde haven, before it men may anchor in 4 or 5 fathom.

Waymouth

Of the Tydes and Courſes of the Streames.

At Beachy by the ſhoare before the ſeven Cleeves, the flood falleth eaſt and by ſouth, and ebbe weſt and by north.

From Wight to Beachy eaſt and by north and weſt and by ſouth thwart of Wight, before Dunnoſe, a ſouth and by eaſt Moone maketh full ſea.

At S. Ellens and the Cowes a ſouth ſoutheaſt Moone.

At Hampton at the kay, a ſouth and north Moone.

Within the Needles of Wight a ſoutheaſt and by ſouth Moone.

Before the haven of Poole a ſoutheaſt and northweſt Moon maketh hig water: alſo a ſouth and by eaſt and by weſt Moone.

Thwart of Portland in the channell a ſ. ſ. e. and n. n. weſt Moone.

From Portland to Wigt, the flood falleth eaſt and by north and the ebbe weſt and by ſouth.

Of the Depths.

Without Beachy thwart of the ſeven Cleves it is deepe 28 & 30 fathom

In the offingh thwart of Wight it is deepe 38 fathom, in ſuch depth men may ſee the land.

In the channel betwixt Portland and the Caskets it is 40 fathom deeper when it is cleare weather, men may ſee the land on both ſides: the neare England the ſhoaler towards the Caskets it is deepeſt.

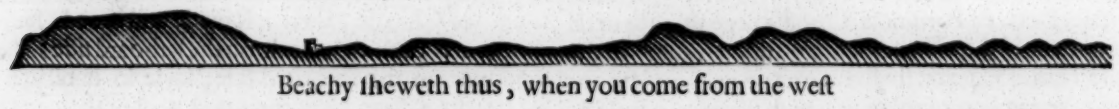
Courſes and Diſtances.

From Beachy to the Owers weſt and by ſouth	13 leagues
From thwart of the Owers in 12 fathom unto Dunnoſe the ſouth poynt of Wight weſt ſouthweſt	5 leagues
From Beachy to Blackneſſe eaſt	18 leagues
From Beachy to Struyſaert ſouth	26 leagues
From Beachy to the Caskets ſouthweſt and by weſt	36 leagues
From Dunnoſe to the ſouthermoſt poynt of Wight, unto the Needles of Wight, weſt and by north and weſt northweſt	4 leagues
From the weſt end, or the Needles of Wight, to the poynt of S. Albons land weſt	4 leagues
From the Needles of Wight to Portland w. & by ſ. & w. ſ. w.	11 leagues
From Wight to Diepe eaſt ſoutheaſt	36 leagues
From the eaſt end of Wigt to Struyſaert ſ. e. ſomewat ſoutherly	29 leagues
From Wight to the Caskers, ſouthweſt and by ſouth	20 leagues
From Portland to Seynhead ſoutheaſt and by eaſt	39 leagues
From Portland to the Caskets ſouth and by eaſt	13½ league.

Heights.

Dunnoſe the ſouthermoſt poynt of Wight lyeth it in	50 degr. 36 min.
Portland lyeth in	50 degr. 26 min.

How theſe Lands doe ſhew them ſelves at Sea.



Beachy ſheweth thus, when you come from the weſt



Thus ſheweth Beachy with the 7 Cleven, when you come from the weſt, and ſayle alongſt by it

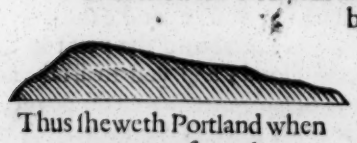


Thus ſheweth the Iſland Wight, when you ſayle alonghſt by it, being 3 or 4 leagues a ſeaboard the land.

Portland.



Thus ſheweth S. Albons land, with Portland, to the weſtwards of it, when you ſayle alongſt by it, being to the eaſtwards of Portland.



Thus ſheweth Portland when you come from the weſtwards.



Thus ſheweth Portland, when it is north and by weſt from you 6 leagues of.



Thus ſheweth Portland, when you come from the eaſtwards.

The

Duytsche mylen 15 in een graet

Spaensche mylen 17½ in een graet

Eng. en Fra. mylen 20 in een graet

C O R N W A L

Truro

Peryn

Vaelmuyen

Philly

Mauſe

Vlaus caſt.

Doodmans hooft

Pentuyn

Trenwydreth

Foye

Tawyck

Tallan point

Weſtcomſter

Viſchers dorp

Pleymuyen

Milbrok

Egdoomb

Ramshooft

Kattewater

Hilfoort

Gwin

I. Lou

Koexbroot

Meuſion

Wemberye

Lezard

Meeuſieen

Ideſton

Bult point

49

48

37

35

32

46

42

45

40

58

55

50

48

De Cuſten van
ENGELANT
Tuſſchen de twee pointen van
Poortlandt en Lezard.

D E U O

J A.

Excester
Exmouth
Start point
S. Dunſtath
Beerporth Point
Lyme
I. Col
Bridport
Toemans ſtonen
Tingmouth
Dortmuyen
Dartmouth
Torbay
Poortlant
Caſquettes ofte Kiſcaſsen
Barroches

Mand Cob.

Torbay

Dart-mouth.

The fourth Demonſtration,

Where in are ſheweth

The Coaſts of England, from Portland to the Lizard.

Iſland Cob.

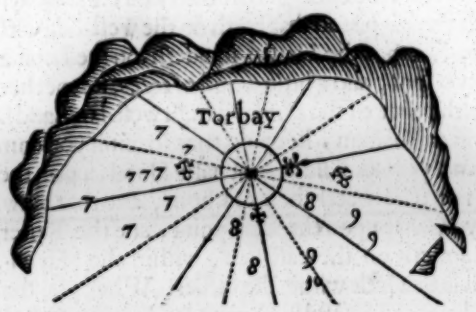
FRom Portland to Exmouth, the courſe is weſt northweſt 13 leagues; betwixt them both lyet little Iſland cloſe by the land, called Cob. Before Exmouth men may ride (at the ſouth-end of the Chindle, which lyeth before the haven) in 7 or 8 fathom, ſo that the rocks of Tomanſtones doe come to lye ſouth, and ſouth and by eaſt from you, there it is good ground, and landlokt for a ſouthwinde.

Torbay

Five leagues ſouth, and ſouth and by weſt from Exmouth lyeth Torbay, and lyeth from Portland weſt, and weſt and by ſouth diſtant 13 leagues.

For to goe into the roade of Torbay, you muſt bring the weſt point ſouth and by eaſt, and ſouth ſouth eaſt from you and anchor there in 7 or 8 fathom, you ſhall lye land-lockt for ſouth and ſouthweſt windes. At the northeaſt-ſide of the bay is alſo a tyde-haven before it, it is good anchor ground in 4 or 5 fathom, according as you will lye neare or farre from the ſhoare.

TORBAY.



Dartnouth.

THree or foure leagues ſouthwards, or to the weſtwards of Torbay, lyeth the Haven of Dartmouth, which hath a narrow entry, lying in betwixt two high lands, upon each-ſide of the Haven ſtandeth a little Caſtle, in time of warret they were wont to ſhut it over with a chaine, on the weſt-ſide ſtandeth a little Church on the high land. For to ſayle in there comming from the Steart or from the weſtwards you muſt run in alongſt by the weſter land, ſo farre to the eaſtwards untill you bring the kay of the village (that lyeth on the eaſt-ſide of the haven) in the middeſt of the entry of the Haven, & ſayle ſo in, keeping the middeſt of the Haven betwixt the two lands, and you muſt bee very ready with the boat (if there ſhould come any fore ſlangs from of the high land) for to row in. Being come in, edge over to the weſt-ſide, before the Brewhouſe, and anchor there in ten or twelve fathom, or before the villagie on the eaſt-ſide where you pleaſe.

At the eaſt-ſide of the Range lyeth a ſuncken Rock, the marks for to avoyd it are theſe. To the eaſtwards of Dartmouth is a red point, which below by the water is black, & in the red lyeth a white ſtone, when the white ſtone commeth over the black point, then are you thwart of the ſuncken Rock, but if you ſee the kay of the village and doe as before is ſayd, then you ſhall not come to neare that ſuncken rock to take any hurt of it.

Betwixt Dartmouth and the Steart, neareſt to Dartmouth ſtandeth a ſpire ſteeple indifferent high and white, called Tackman, that is a very good marcke to know the haven of Dartmouth by.

Steart.

The Steart lyeth from Dartmouth ſouthweſt diſtant 3 leagues. Under the point of the Steart at the eaſt-ſide is a good roade for weſterly windes, betwixt the little Church that ſtandeth upon the high land, & the point of the Steart in 10 or 11 fathom, ſo that the point lye ſ. w. from you.

Steart.

A little to the eaſtwards of the weſtermoſt point of the Steart lyeth a haven, called Salkom, when you come from the weſt, it ſheweth it ſelfe open, the weſt-ſide of it is ragged and the eaſt-ſide goet ſloping downe, cloſe to the weſt point lyeth a rocke, or a rane of rockes, therefore you muſt give it a good birt, & leave the rockes on the larboard-ſide: Further, you may ſee all breaks that can doe you hurt. Being come within the point, you can take no hurt of either of both ſhoares. Upon the barre or ſhoals of the entry, remaineth at low water with a ſpring-tyde, not leſſe then 11 foot water, and again within it is leaſt three fathom deep.

Plymmouth. Meew ſtone.

Seven leagues to the weſtwards of the Steart lyeth the ſound of Plymmouth, at the outermoſt eaſt point of the ſound lyeth a high round rock, called Meewſtone, the weſt point is called Ramehead, betwixt them both goeth in the ſound Plymmouth n.n.e. it, it is broad & deepe. A little to the northwards of Ramehead is a faire ſand-bay, where men may anchor cloſe under the land, in 9 and 10 fathom. Two leagues ſouth a little eaſterly from Ramehead, lyeth a Rok above water, called Eddyſtone. The point of Plymmouth lyeth from the Eddyſtone north and by eaſt, and n.n.e. diſtant about 4 leagues. In the ſound, by the land of Plymmouth, lyeth a little Iſland, which is faſt to the weſt-ſide with a riffe or rane of Rocks under water, ſo that men muſt ſayle alongſt to the eaſtwards of it, whether they be bound into Catwater, or into Hamoſe the weſt harbour. If you will goe into Catwater, then runne in betwixt the Iſland & the point on the eaſt-ſide in with the land Plymmouth, untill that you ſee Catwater open on the ſtarboard-ſide of you, goe then in to the eaſtwards betwixt the point of Plymmouth, and the foreſayd eaſt-point on the ſtarboard ſide of you, leaving the moſt part of the channell on the ſtarboard ſide of you, untill you come within the point, and anchor there right againſt that high ſteepe northerland, there is at low water with an ordinary tyde four and five fathom deepe.

Eddyſtone.

Catwater.

When you ſayle into Catwater, you muſt take heed, and give a good birth to the ſouther-point of the entry of Catwater, for there lye of to the foreſayd point, a ledge of rocks under water, neare about two cables lengths from the Land, & upon the point of the ledge or ſhoale, lyeth a buye, where is at halfe flood about twelfe foot water, which buye you muſt leave on your ſtarboard ſide in going into Catwater, and when you have Catwater altogether open, you may run into the eaſtwards, leaving (in the entry of the harbour) two thirds parts of the channell on the ſtarboard ſide, as before is ſayd, becauſe the ſouth ſhoare is ſomewhat flat off, there lying a ſandy bancke, which reacheth to the ſecond point of the ſouth ſhoare of Catwater.

A little to the eaſtwards of that foreſayd little Iſland, lyeth a rocke under water, upon which is at low water not deeper then two fathom. For to ſayle within the Iſland, you may goe into the eaſtwards, or to the weſtwards of the rock according as occaſion ſhall ſerve. If you wil ſayle into Hamoaſe, to the weſtwards of the rock, then take the ſounding of the Iſland in 4 or 5 fathom at low water, and run ſo by it, untill that the Fiſher Village (lying to the northwards a little within the land) come in the weſt-ſide of the valley on the north ſhoare, then are you to run through betweene the Iſland and the rocke, and to the weſtwards of the rock. Within the Iſland upon the land of Plymmouth, ſtandeth a wall or hedge, when as you ſee that onendling, and the cappel of the foreſayd Fiſher Village commeth to the north-ſide of the Valley, and Catwater commeth open; then doe you runne over the Rocke. Betweene the Iſland and the mayne, men may anchor in 12 & 13 fathom.

If you be bound into Hamoaſe, you muſt runne in betweene the Iſland and the land of Plymmouth, and then in amiddeſt the Channell betweene the two Lands, untill that

the entry of Hamoaſe be open; runne then into the northwards, as the channell leadeth, untill you come in about the weſt-point, and anchor there in 16, 15 and 12 or 10 fathom. In the narrow it is 15, 16, 17 and alſo 20 fathom deepe, and betweene the Iſland and the mayne 8, 9, 10 and 12 fathom.

The German a ſunken rock.

About halfe a cables length to the eaſtwards of the paſſage way goingh into Hamoaſe, lyeth a ſuncken Rock under water, called the German, about two great ſhippes lengths from the ſhoare, and at low water hath noth above four foot water upon it. And when men doe come any thingh neare this foreſayd ſuncken Rock goingh into Hamoaſe, either with the Flood or the Ebbe, the tyde will ſet them right upon it, if it bee calme. Therefore to avoyd it, men muſt (with calme weather) give this foreſayd ſuncken Rock a good birth, untill they bringh the houſes of the Fiſher-Village, (called the Stone-houſe) open of the eaſter-point of the Paſſage way, and then runne in over towards the north-ſhoare, untill they have hidden the Iſland in the foreſayd eaſter-point of the paſſage way, for to avoyd a ſuncken Rock that lyeth of to the eaſtwards from the north-point of the Beach on the weſt-ſide of the Paſſage way, a halfe cables length of, then runne amids the channell into Hamoaſe. Upon this foreſayd ſuncken Rock at low water, is not above 3 or 4 foot water.

Suncken Rocks.

Suncken Rocks.

In the ſound of Plymmouth, not farre to the northwards of the Mew-ſtone, lye two or three ſuncken Rockes, upon which remaine at low water not more then 3 or 4 fathom water, the marckes of them are theſe: to the eaſtwards of Plymmouth ſtandeth a Tower with a Mil, and to the weſtwards of the foreſayd little Iſland ſtandeth a Gentlemans-houſe, when the little Tower or turreth of that houſe commeth over the point on the weſt-ſide of the Iſland, and the foreſayd Tower and Mill to the eaſtwards of Plymmouth come one over the other, then are you upon the innermoſt ſuncken Rocke or ſhoale, which is at low water 4 fathom deepe. But when the point of Hamoaſe commeth even without the point to the weſtwards of the Iſland, and the foreſayd Tower and Mill alſo one in the other, then are you upon the outermoſt Rocke, where it is at low water and ſpring-tyde 3 fathom and a half deepe.

From Ramehead weſt and by ſouth 5 leagues, lyeth Foy, and betwixt them on the coaſt lyeth a little Iſland, a little to the eaſtwards of a point, called Talland-point thwart of Weſt-Louwe, called Louw-Iſland, you may anchor there to the eaſtwards of the Iſland in five or ſix fathom.

Low-Iſland.

Foy.

Foy is a broad Haven, where a ſhip may go in at a half Flood, at the eaſt-ſide of the Haven ſtandeth a little Church with a little ſteeple, and on the weſt-ſide a white Church, ſomewhat greather then that upon the eaſt-land with a ſquare ſteeple at the weſt-end of it.

For to ſayle into Foy, you muſt have at leaſt a halfe Flood, and runne in midſt the Channell betwixt the two points, and being come within, then chuſe which ſide you will, but the moſt water is by the weſt-land betweene the ſtakes & the Tower that ſtandeth upon the weſt-land. Being come within the Stakes (as you come in by the weſt-land) then beare ſomewhat of preſently from the weſt-ſhoare, allmoſt into the middle of the Channell, neareſt to the weſt-ſhoare, untill you come before the Village that lyeth on the weſt-ſide, there is a deepe docke, where a ſhippe that draweth 16 foot water may lye a Float a low water. In the ſayd dock may 3 or 4 ſhippes lye.

If (when you come in by the eaſt-land) you deſire to be in the foreſayd docke or Poole, then ſayle in untill you come within the ſtakes, and then edge over of from the eaſt-land untill you come neareſt the weſt-land, for to avoyd a Flat, which lyeth by the eaſt-ſhoare alonghſt the Haven, and beginneth againſt the firſt houſe of the Weſt-Village. If it ſhould happen, that you could noth lead it in with a ſayle, then let your anchor ſal without the ſtakes, and warp in with hawſers, untill you come into the fore ſayd Poole.

You may alſo ſayle ſo farre in, that you may ſee a wall on the weſt-ſide of the Haven, where lyeth a Village behinde it. A ſhippes length to the ſouthwards of that wall, it is good lying by the eaſt-land, being moored by 4 cables, there may alſo a ſhip tyde a Float that draweth 16 foot water. You may alſo ſayle further in alongſt by that Swach that lyeth on the weſt-ſide, wherein the Mill ſtandeth, but come not to neare the north-point of the Swach, for there by it, lyeth a Rock under water, being paſt that you may moore your ſhip in the middeſt of the Channell, there is beſt lying for ſhippes that draw much water.

Dodman.

Foure leagues ſouthweſt and by weſt from Foy, lyeth the point of Dodman, and 2 leagues to the weſtwards of it lyeth the Haven of Falmouth. The point of Dodman is double Land with a round hill, which to the weſtwards goeth ſlopingh downe, ſomewhat towards the weſt-end ſtandeth a Mill with a ſharp Tower, and ſome little houſes upon the land, ſomewhat to the weſtwards, men may ſee the caſtle of Falmouth upon a round Hommocke againſt the high land. This land is very eaſy to be known when you come from the weſt, or from the Lizard.

Falmouth.

Upon the weſt-point of the Haven of Falmouth ſtandeth a Caſtle upon the high land, and in the entry neareſt the weſt-ſide, lyeth a great Rock above water, you may ſayle about it on both ſides, at the inner-ſide of the eaſt-poynt lye alſo ſome Rocks of from the ſhoare. For to ſayle in there to the eaſtwards, alonghſt by the foreſayd Rocke, you muſt runne in within 2 cables lengths, alongſt by the eaſt leaving the foreſayd Roks on the ſtarboard ſide, and the great Rocke on the larboard ſide, and ſo ſayle right in with the high land that lyeth on the weſt-ſide within the Haven. Within the Haven ſtandeth on the Land a white Chalkye ſpot, alſo a little wood of trees, keepe them over the north point of the foreſayd high weſt-land, and ſayle ſo right in with them, keeping them ſo untill you come neare them, you ſhall finde ſo at halfe Flood, upon the ſhoaleſt, not leſſe water then 5 fathom, and that betwixt the foreſayd Caſtle upon the weſt-point, and the Eaſter-caſtle that ſtandeth on the eaſt-ſide, within the Haven, over againſt it, or a little within the caſtles. When you ſhall then come by that foreſayd high weſt-land, runne alongſt by it, unto the north-end of the ſame, and anchor there in twelve, thirteene or fourteene fathom. You may alſo from thence edge over towards the eaſt-land, and anchor there under or behinde the banck, that lyeth of from the Eaſterne caſtle alongſt the middle the Haven, in ſix, ſeven or eigt fathom: the banck falleth allmoſt dry at low water, and is ſoft ground, ſo that the ſhippes ſit in the oaſie, when they come there a ground.

Helford.

For to ſayle into the weſtwards of the foreſayd great Rock, you muſt take the ſounding of the weſt-land where the caſtle ſtandeth upon, in 5 or 6 fathom, being ſomewhat within the Rock, runne (as before is ſayd) towards the weſt-land. To the weſtwards of the Rock, it is in that channell 6 and 7 fathom deepe at halfe Flood, but in the channell to the eaſtwards of the Rock 7 and 8 fathom.

Four leagues ſouth and by weſt from Falmouth lyeth the eaſt-point of the Lizard, betwixt them both lyeth a Haven, called Helford, which is little uſed for ſhips.

At the ſouth-ſide of the Haven, lyeth a ſteepe point, and on the north-ſide a low ſharpe point. Within the haven on the ſouth-ſide, ſtandeth a Gentelmans-houſe beneath at the ſtrand, and upon the hill ſtandeth a tuſſe of trees, you muſt keepe theſe one in the other, and runne ſo amiddeſt the channell into the entry of the haven. On the north-ſide ſtand alſo two or three trees, theſe come a maſts length to the weſtwards of a little houſe that ſtandeth in a white ſandy bay, there upon you may ſayle in alſo amidſts the channell, it is a ſhort in-let, being come within, you may anchor in 6 or 7 fathom. Upon the ſouth-ſide ſtandeth alſo a ſharpe Tower, and upon the north-ſide a little caſtle upon the ſteepe land.

The Lizard hath three points, the northermoſt is called the Blacke-head, from that to the ſecond the coaſt lyeth ſ. w. and by weſt, and alongſt to the third about w. ſ. w. or weſt and by ſouth: from the ſecond or middelmoſt-point, lye to Seawards ſome Rockes a cables length, or a cables length and a halfe off, called the Staghs.

To

To the northwards of the northermoſt, or eaſtermoſt-point of the Lizard, betwixt Helford and the foreſayd point lye ſome Rockes a great league of from the land, called the Mannackles, ſouth and by eaſt from the harbour of Falmouth, and e. n. e. from the foreſaid Blackhead, where of many of them are above water at low water, and ſome of them at hig water remaine uncovered. Betwixt them and the ſhoare it is very fowle and rocky, ſo that men cannot run throug betwixt them without great danger.

He that commeth out of Falmouth, and is bound to the weſtwards, muſt not goe more ſoutherly with an Ebbe then ſ. ſ. e. or ſ. e. and by ſouth according as the winde ſhal bee, for to run cleare of theſe foreſaid.

Of the Tydes and Courſes of the Streames.

In Dartmouth and Torbay a weſt and by ſouth Moon maketh full Sea.

Thwart of the Steart in the channell, a w. n. w. and e. ſ. e. Moone.

From the Steart to Portland in the middeſt of the channell, the Flood falleth e. n. e. and the Ebbe w. ſ. w.

Thwart of Dartmouth by the land, the Flood falleth n. e. and by north and the Ebbe ſ. w. and by ſouth.

Thwart of Torbay towards Exmouth in the Baye, the Flood falleth n. n. e. and the Ebbe ſ. ſ. w.

In Plymmouth and Foy a weſt and by ſouth and by eaſt and by north Moon maketh the higheſt water.

Thwart of Foy in the channell an e. ſ. e. Moone.

A Seaboard of Falmouth an eaſt and by ſouth, but in the Haven of Falmouth an eaſt and by north Moone.

At Helford and at the Lizard, by the land, an e. ſ. e. and w. n. w. Moone maketh the higheſt water.

From Ramehead to the Steart by the land, within the Eddy-ſtone, the flood falleth e. ſ. e. and the Ebbe w. n. w.

From the Dodman to Ramehead, the flood falleth e. n. e. and the Ebbe weſt ſouth-weſt.

From the Lizard to the Dodman, n. e. and ſ. w.

In the channell betwixt the Lizard and the Steart, thwart of Foy, the flood falleth eaſt and by north and the Ebbe weſt and by ſouth.

Of the Depths.

The Steart & the land of Dartmouth men may ſe them both in 45 fatum.

When you have the hig land of Plymmouth north from you, you may ſe in 5 fathom, it is hig double land, and ſheweth it ſelfe firſt in two hilles. That ſame hig double land within the land, you may ſee it from thwart of Foy untill you come thwart of Dartmouth.

The Dodman you may ſe in 24 fatum of from the Lizard to the Steart.

The Lizard you may ſee in 55 fathom, there the ground is white and red ſhelly ſand.

Courſes and Diſtances.

From Portland to S. Paul de Lion, ſ. w. and by ſouth	40 leagues
From Portland to Uſhant, ſ. w.	53 leagues
From Portland to Exmouth w. n. w.	13 leagues
From Torbay to Dartmouth ſ. w.	3 a 4 leagues
From Dartmouth to the Steart, ſ. w.	3 leagues
From Portland to Torbay, weſt ſomewhat ſoutherly	13 or 14 leagues
From Portland to Dartmouth weſt and by ſouth	16 leagues
From Portland to the Steart w. ſ. w. weſterly	19 leagues
From the Steart to the Caskets e. ſ. e.	21 leagues
From the Steart to the Sept Iſles, ſ. & by e. ſomewhat eaſterly	24 leagues
From the Steart to S. Paul de Lion, ſouth & by weſt, ſomewhat ſoutherly	27 leagues
From the Steart to Rainehead, the courſe is w. n. w.	8 leagues
From Ramehead to the Iſland of Lowe, w. ſ. w.	3 leagues
From the Iſle of Low to Foy, weſt	2 leagues
From Foy to the Dodman ſ. w. and ſ. w. and by weſt	5 leagues
From the Dodman to Falmouth w. & by ſ. and w. ſ. w.	4 leagues
From Falmouth to the Lizard ſouth and by weſt	4 leagues
From the Steart to the Eddy-ſtone weſt or a litle more northerly	7 or 8 lea.
From the Eddyſtone to Ramehead north a little weſterly	2 leagues
From Ramehead to the Dodman w. ſ. w.	8 leagues
From the Dodman to the Lizard ſ. w.	6 leagues
From the Steart to the Lizard weſt and by ſouth	20 or 21 leagues
From the Lizard to Garnſey eaſt and by ſouth	37 leagues
From the Lizard to the Sept Iſles, or ſeven Iſlands, the couſe is ſ. e. & by eaſt	31 leagues
From the Lizard to Uſhant ſouth	29 leagues
From the Lizard to cape de Finiſterre ſ. w.	153 leagues
And that courſe goeth about 5 leagues without the cape.	
From the Lizard to Teneriffe ſ. ſ. w.	466 leagues
From the Lizard to Tercere, ſ. w. and by weſt	386 leagues

Heights.

The Steart lyeth in	50 degrees 12 minutes
Or as ſome will hold, more northerly.	
Torbay lyeth in	50 degrees 28 minutes
The Lizard lyeth in	50 degrees.

How theſe Lands doe ſhew themſelves at Sea.



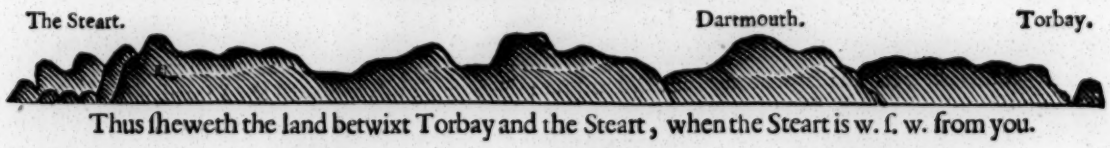
Thus ſheweth the land to the weſtwards of Portland, when you ſayle alongſt by it.



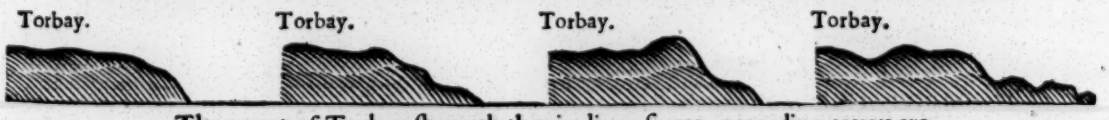
The land betwixt Torbay and the Steart ſheweth thus.



Thus ſheweth the land betwixt Torbay and the Steart, when the Steart is ſouthweſt and by weſt from you.



Thus ſheweth the land betwixt Torbay and the Steart, when the Steart is w. ſ. w. from you.



The poynt of Torbay ſheweth thus in divers forms, according as you are ſoutherly or northerly of from it.

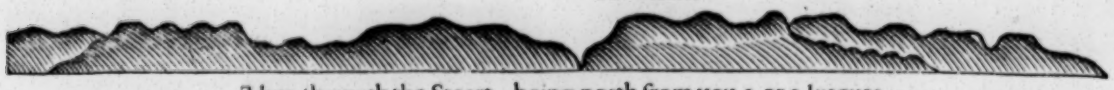


Theſe two figure belong one to the other at the two Croſſes.



Thus ſheweth Dartmouth, as it is pourtrayed in theſe two Figures, when you are right thwart upon it, a league or two from the land, with the land on both ſides of it, as well towards the Steart as towards Torbay, and to the northwards of it.

The Steart.



Thus ſheweth the Steart, being north from you 2 or 3 leagues.



Thus Steart being north from you 7 leagues, ſheweth thus.

This open will be ſhut too when you ſayle to the weſtwards. This open will be ſhut too when you ſayle to the weſtwards. The Steart.



When the Steart is n. e. from you, it appeareth in this forme, and then the point goeth flat downe.

Salkom. The Steart.



Thus ſheweth the land to the weſtwards of the eaſtermoſt point of the Steart, towards Salckom, when you ſayle alongſt by it.

Pleymouth n. n. w. The Steart n. n. w.



Thus ſheweth the land of the Steart, and alongſt to the weſtwards of Plymmouth, when the Steart is n. n. e. about two leagues, and the ſound of Plymmouth n. n. w. 5 or 6 leagues from you.

Mewſtone. The Steart.

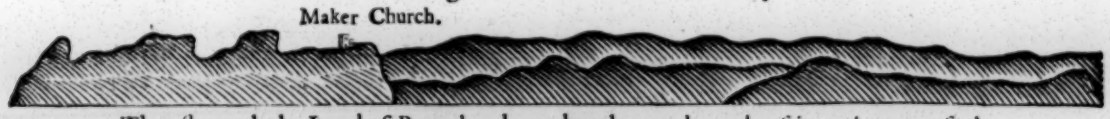


The land betwixt the Steart and the ſound of Plymmouth, ſheweth it ſelfe in this forme, when you ſayle alongſt by it.



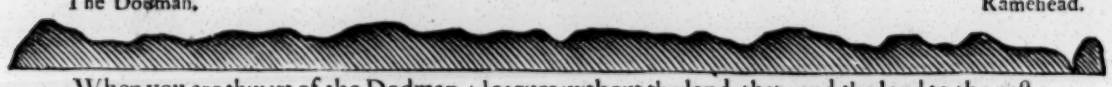
Thus ſheweth the high Land to the eaſtwards of Plymmouth.

Maker Church.



Thus ſheweth the Land of Ramehead, and to the northwards of it, when you ſayle in to the ſound of Plymmouth.

The Dodman. Ramehead.



When you are thwart of the Dodman 4 leagues without the land, that, and the land to the eaſtwards of it, unto Ramehead, ſheweth it ſelfe in this manner.

The Dodman, when you are right before it.



Thus ſheweth the Land to the eaſtwards of Falmouth, when you ſayle alongſt by it a league a ſeaboard the land.

Lizard. Falmouth. Dodman.



Thus ſheweth the land betweene the Dodman and the Lizard.



Thus ſheweth the Lizard, when you ſayle alongſt by it.

Lizard. Hilforth. Falmouth.



The land betwixt Falmouth and the Lizard ſheweth thus, when you are before Falmouth.

The fifth Demonſtration,

Where in are Delineated

The Coaſts of England, from the Lizard and the Lands-end, to the Cape of Cornwall, the Sorlings and the Channell of Briſtow.

The Lizard. THE Lizard is al low point, where ſome rocks lye of from it, upon the ſoud end ſtandeth a Tower, & upon the high land towards the north-end ſtandeth another Tower, which is ſharpe.

Mounts bay. About 5 leagues n. w. from te Lizard, lyeth a great Baye, called Mounts-bay, at the weſt-point of that bay lyeth a little Iſland, where upon ſtond two little ſhort towers like Beakons, on the eaſtſide in the Bay lyeth another high little Iſland, where upon ſtandeth a Caſtle, called Sint Michaels Mount on the eaſt-ſide of this Baye, lyeth a great ranne of roks, which lye of in to ſea a league from the land, where of men muſt take good heed in darck weather, from

S. Michaels Mount.

Mi-
els
unt.

VERLANT

Grenoort

Horsblij

Vorckkar

Tuskar

Saltes

Kinnor

Masens

De Bisschop met zyn Klerckē

S. David

I. Ramsey

Brede bay

Dale

Scalina

Gresholm

I. Stocholm

Scakum

Kamey

Smals

Ulylford haven

S. Govens point

49

45

I. Londay

Beels haven

Stoupes point

Padstow

S. Ives bay

I. Bressay

Ives

C. Cornwal

Whitsand bay

S. Burien

Scylinges

Scyensteen

Lyzard

I. Uystan

Lamorna point

de Wolf-

M. S. Michiel

Mousbay

Hussoort

Helston

Curry

Lizard point

Lezard

E N

Van Lezard

Canael van

By I

Duytsche mylen 15 in een graet

Spaensche mylen 17½ in een graet

Eng.en Fra. mylen 20 in een graet

ASSENGESANT.

Carmarten

Newport

Aberavon

Cardief

Wormshoost

Mumbles P.

Penmart P.

Oxwich Point

De Nass

Engelse gronden

Bristou

Barry I.

Silli

Steepholm

Vpnilhaven

Hunstril

Dunster

Mynhead

Combemarten

Ilfar Combe

Porlock bay

Porlock

Bedsford haven

Barnestable

Bedsford

CORNWAL.

Sorlinges

Cust van

ENGELANT.

Engelands eynd, de Sorlinges, ende
daermede hoe't van Yerland gelegen is.

t'Amsterdam,
By Lucas Janszoon Boeck-verkoper
ende Meester ini Lootsman.

from thence to the ſouthward towards the Lizard the coaſt is all a alongſt ful of Rocks, but theſe lye not ſo farre of from the ſhoare.

For to ſaile into Mounts-Bay, comming from the lands-end, or from the Lizard, and being to the weſtwards of the foreſaid Rane of rocks, you muſt runne in rigt with the little Iſland called S. Michaels Mount, ſo long until you come within a half league of it, then edge up to the weſtwards towards the Bay, until that you ſee that foreſayd little Iſland, with the two little ſhort towers at the weſt-point, leave it on the larboard-ſide, and runne in cloſe alongſt to the northwards of it, for it is very cleane, but leave the caſtle a great wayes on the ſtarboard-ſide, being fowle about it. Being come within the little Iſland at the weſt-poynt, you ſhal ſee within it a great ſandy baye, anchor there in 7 or 8 fathom. Eaſt ſ. e. and ſ. e. winds doe blow there rigt open in, for all other winds you lye there landlockt.

Foure leagues to the weſtwards of Mounts-Baye lyeth the Lands-end of England, & lyeth from the Lizard w.n.w. diſtant 9 or 10 leagues. About a league ſ. e. from the lands-end and halfe a league without the land, lyeth a ſuncken rock, which at low water commeth above water. Thwart of that Rock ſtandeth a Church upon the land, when you can but even ſee that over the hig land, then are you thwart of the foreſaid rock, to witt, even as farre from the land as the rock, but when the Church is hidden behinde the high land, that you cannot ſee it, then are you nearer to the land then the Rock, or within the Rock towards the land, and ſo you ſhal goe throug betwixt it and the Land.

Upon the Lands-end of England lye two round hills, when you get ſight of them you ſhal ſee upon the higheſt a ſpire Tower, comming ſomewhat nearer, you ſhal ſee upon the outermoſt-end, in the low land, another ſpire Tower, thereby is the Lands-end reaſonable well to bee knowne. The ground is thereabouts whitiſh ſand, with red ſand, and mingled with ſhels.

From the lands-end unto the cape of Cornwall, or to the little Iſland Breſam, lyeth the coaſt moſt north about five leagues.

At the Land-end lye ſome Rocks, you may runne in within them as well to the northwards as to ſouthwards, & come to anchor in 8 or 9 fathom: to come in there from the ſouthwards it is narroweſt, and 10 fathom deepe: from the northwards it is beſt and broadeſt, and 8 and 9 fathom deepe; but on the left-ſide cloſe to the north-point of the Lands-end lyeth a ſuncken Rocke, which you muſt avoyd when you ſayle in there.

Silly lyeth from the Lands-end w. ſ. w. diſtant 8 leagues, but from the Lizard weſt, 16 or 17 leagues.

Betweene the Lands-end and Silly lye de Seven-ſtones weſt and weſt and by ſouth 4 leagues from the Lands-end, and n. e. and by eaſt and e. n. e. almoſt 3 leagues from Silly, that is, a Rane of Rocks which come not above water, but alwayes braketh upon them.

South ſ. w. and ſ. w. by ſouth 3 leagues from the Lands-end, and 5 leagues eaſt from Silly, lyeth alſo a ſharpe rock, called the Gulfe, which commeth a halfe tyde above water, and is round about indifferent cleane.

Silly is divided into divers Iſlands, alongſt the weſt-ſide lyeth a great multitude of Rocks, men may goe in there throug divers channels or ſounds, but the ſouther channel is the beſt. About the middeſt of the entry of that ſound or channel, lyeth a ſuncken Rock, men may goe in on both ſides of it, but to the eaſtwards of it, it is broadeſt and beſt. For to ſaile in there comming from the eaſt, you muſt runne alongſt by the eaſt-land in 8 or 9 fathom, and you ſhal ſo runne alongſt to the eaſtwards of that foreſaid ſunken rock, which lyeth againſt a ſconce a little without the caſtle. The marckes to avoid this rock, are two rocks which lye on the weſt-ſide within the Haven, the one (to witt, the innermoſt) is ſomewhat greater then the other. If you bring them one in the other, or the northermoſt a little to the eaſtwards of the outermoſt or the ſmalleſt ſo that you may even ſe throug between them, and ſail ſo rigt in, keeping them ſo you ſhal ſo ſaile farre enoug to the eaſtwards of the Rock. If you come from the ſouthwards or the weſtwards, and are bound into Silly, then runne towards the eaſt-land ſo long until you bring the two foreſaid rocks within the Haven one in the other, or even throug one another, ſaile then ſo in, and then you ſhal runne (as before is ſaid) cleare of the foreſaid ſuncken Rock, thwart of the ſconce. At the inner-point of the Iſland, at the eaſt-ſide of this ſoutherne channel, lyeth another ſuncken Rock, whereof men muſt take heed. For to avoid it, you muſt run ſo long to the northwards, upon the marckes of the foreſaid two rockes, until you may ſee the little Tower in the ſandy Bay, then goe to the eaſtwards, unto the Bay, & anchor there in 8 or 9 fathom. When you come neare Silly upon the ſouth-ſide, you ſhal ſee a ſquare Tower in the ſandy bay or valley, and to the weſtwards many little Iſlands and rocks. The ground of Silly is ſomewhat ſtony with ſome red ſhels.

Of the Depths and many ſorts of Grounds before & in the Channell betweene Silly and Uſhant, and thereabouts.

SOuthweſt and by ſouth from the Seames 7 leagues it is deep 72 fathom, the ground pale, white courſe ſand, like ſmal fretted little ſtones, with little peeces of queenes ſhels with gray flat little ſtones, and white gliſtering needles, ſaile from thence north and north and by eaſt, and then you ſhal ſal wel to paſſe with Uſhant. Seames.

About two leagues ſ. w. from the Seams it is deep 52 fathom, the ground there is white, yellow, roug, and ſomewhat longiſh ſand, with a little red ſmal ſhelly ſand, with many gray crompeld things, and ſome ſmall with gliſtering poynt of needles. If men did finde there 70 or 80 fathom, they would judge it to be good Channel-ground.

Weſt ſouthweſt from the Seames, ſo farre from the land, as men may but even ſee the Sheets from the Poop, with cleare ſigt, it is 54 fathom deep: the ground is red, jellow, white and black peeces, like parings of cheeſe, and a little courſe red ſand mingled with all. Seames.

Weſt and by ſouth 8 or 9 leagues from the Seames is 65 fathom, the ground is white yellow, with a little red ſmal ſhelly ſand, with ſome peeces of ſhells and queens not very great, with much white and yellow ſomething long ſand, and ſmal white things like points of needles, like as men find in the Channell. Seames.

Seven leagues ſ. w. from Uſhant, or there abouts, that men may even ſee it from the Poop, having cleare ſight in 70 fathom, there the ground is white and yellow courſe ſand, with ſome peeces of queenes ſhels, and ſome peeces of white thin ſhels, with ſome gras flat ragged ſtones. Uſhant.

Southweſt and by weſt from Uſhant, about 19 or 20 leagues in 78 or 80 fathom, the ground is white and yellow courſe ſand, with ſmal gliſtering needles, with white peeces of queens ſhels, and gray and yellow flat ſtones, and little peeces, like as it where of Oyſter ſhels.

Weſt and by ſouth from Uſhant 21 leagues, in 68 fathom, the ground is red yellow, and black, mingled with a little white round ſmal ſand, like ſhelly ſand. But in 80 fathom, 21 leagues weſt and by ſouth of from Uſhant, the ground is yellow and ſhelly, with ſome gray and crompled little needles, like ends of ſmal rye. Uſhant.

In eighty fathom 24 leagues from Uſhant weſt and by ſouth, men finde rough great ſand, with many ſorts of ſhels, red, white, yellow, and gray, with peeces of queene ſhels. Uſhant.

From Uſhant weſt 16 or 17 leagues, in 75 fathom, the ground is white and yellow courſe ſand, with peeces of thin white ſhels, and gray peeces of queenes ſhels like as it where of Oyſter ſhels, white ſmall white gliſtering things like needles.

Eight or nine leagues from Uſhant it it deepe 70 fathom the ground red, white, yellow, and gray ſhelly ſand, with red, yellow, and black peeces of ſhels, and ſmal red, yellow, black, and gray ſtones, with ſome ſmal white things like needles. Uſhant.

Eight and fourty leagues weſt and by north from Uſhant, and 50 fathom weſt ſouthweſt from the Lizard, Uſhant.

or there abouts, it is deepe 95 fathom, the ground red, yellow and black sand, with smal white round shelly sand, and some little peeces of shels, & queen shels, with some peeces of thin shels.

Three and thirty leagues west & by north from Ushant and 27 leagues southwest and by south Silly, in 95 fathom, the ground is gray, red and yellow, mingled with small black sands, with darke, red, white and yellow peeces of shels; to wit, gray and red shelly sand. And east northeast course from this ground of, is the best, it is in the height of about 49 degrees.

Foure and twenty leagues west, or west & by north from Ushant. Ushant, & south & by west from Silly 21 leagues in 80 fathom, there the ground is white, gray, red and yellow fine smal shelly sand, whith litle red & white peeces of litle shels, like bruysed mustard seed in the heyght of 49 degrees.

Seven or 8 leagues west and west and by north from Ushant. Ushant in 68 or 70 fathom, there the ground is white and yellow, small shelly sand, mingled with many gray crompled little things, like needles.

Ushand. About 30 leagues somewhat more northerly from Ushant, in 90 fathom, the ground is small white rough, and somewhat long sand, mingled with a little red and yellow, and some glinstering little things like needles, with 2 or 3 peeces of white gray shels. If you goe on from thence north east and by north, untill you come in 55 fathom, there the ground is yellowish, white course shelly sand, with white peeces of shels; then you may see Silly lye nine or tenne leagues north or somewhat more westerly from you.

Ushand. Lizard. West northwest from Ushant 21 leagues, and southwest and by south from the Lizard 27 leagues, in 80 fathom, the ground is gray and red shelly sand, there commeth also on the lead a little peece or two of white or gray queene shels, with yellow and red peeces of shels, also peeces of perriwinckels.

Ushand. Nine leagues north-west and by north from Ushant, the ground is white and yellow rough shelly sand, with gray crompled glinstering little things like needles, there come also on the lead little things like small straw. If you goe on northeast from thence, you shall fall with the Steart.

Twenty leagues northwest and by north from Ushant, and 16 leagues southwest somewhat southerly from the Lizard in 68 fathom, the ground is white yellow and red smal round sand, with some white glisteringh little thinghs like needles, with one or two little gray compled thinghs like needles, and 2 or 3 little peeces of little white shels.

Ushand. Lizard. Nineteen leagues north northwest from Ushant, and 12 or 13 leagues south southwest from the Lizard, it is 68 fathom deepe, the ground is there all manner of ragged stones, gray, red and black with red peeces of shels, and some gray compled little things like needles.

Ushand. Nineteene leagues north and by west from Ushant, the south from the Lizard, it is deepe sixty two fathom, the ground is white and course shell sand, with white and gray crompled little thinghs like needles, with white peeces of shels, and 2 or 3 little stones amongst it.

Silly. Twelve or thirteene leagues west from Silly, or somewhat more northerly, it is deep 60 fathom, the ground is gray and oasie, mingled with smal black sand. In some places of the same depth it is white gray oasie small sand, with peeces of thin white shels amongst it, with a little peece or two like parings of cheese: this ground cannot be gotten up with candle tallow, or other hard tallow upon the lead, but with soft tallow, or butter. In these depths you have no where such oasie ground as there, whereby men may well know that they are on the back side of Silly or England, to wit, west from Silly.

Silly. West from Silly 7 leagues, it is oasie gray sand with two or 3 little peeces like parings of cheese.

Seven or 8 leagues south-southwest from the Lizard in 16 fathom, the ground is white grosse with a little red sand, with little shels, & little glinstering white things like needles. Nine or ten leagues south and by west from the Lizard, in 60 fathom, the ground is yellow pieces of shels, and gray pieces of soft flat stones like paringhs of cheese, with some red pieces of shels, without any sand there in.

Lizard. Southwest and by west from the Lizard and south southwest from Silly 19 leagues, it is deep 78 fathom, the ground gray, yellow, and red shelly sand, with red, yellow, and ble pieces of shels, with queene shels, and a piece or two like parings of cheese, or like pieces of Oyster shels, with also two or three glinstering little thinghs like needles, in the height of about 49 degrees, and 30 minutes. Silly.

Fifteen or sixteen leagues southwest & by south from the Steart, in 57 or 58 fathom, the ground is full of pieces of all maner of shels, and queen shels with a little yellow & white shelly sand, with many forth of little stones, and gray little pieces like parings of cheese, with some crumpled, and some not crumpled, but little glinstering things like needles, and little thinghs like maggots that are in Bacon. Steart.

South southwest from the Steart, sixteen leagues, in 53 fathom, the ground is white reddish shelly sand, with pieces of queene shells, with red gray little stones.

Southwest from the Steart 8 leagues, it is deep 40 fatum the ground gray and red shelly sand. Steart.

South southwest from the Steart, 13 or 14 leagues, it is deep 47 fathom, the ground pale muddy sand, with little long things, and little stones.

A great kenning south southwest from the Steart, it is deep 40 fathom, the ground red sandy clay with pits in the tallow.

Southwest eleven or thirteen leagues from the Steart, in fifty fathom, the ground is white and yellow small shelly sand, with some pieces of white shels, with gray and crumpeld, and also glinstring little things like needles. In fine, he that soundeth much, getteth many and divers sorts of grounds and sometimes great change in little distance of place. But he that soundeth and findeth white shels, with little things like strawes and needles, it is certaine that he is neareſt to Ushant: but if he finde brandy ground, or blacke little stones mingled with white little things, then is he neareſt to Silly. Steart.

He that soundeth thwart of Ushant, and findeth small white sand, and little shels, and small little things oasie and white. Ushant shall then lye northeast from him. If he finde long small little things like needles, then shall Ushant lye southeast from him. But if he be not sure of these grounds, then he shall beare to the northwards. And if he finde deeper water then he is towards the Seams, but if he finde it shoaly, then he is in the entring of the Channell to the northwards of Ushant. If he be between Ushant and the Seams in 70 fathom, he shall finde the ground to be small little stones like black sand of the earth: or else if he finde the ground to be great red sand, then he must stand to the northwards, untill that he finde the white sandy ground, and long smal things then he may hold him self certaine to be in the entring of the channell. Marks of Ushant & Silly.

From the Lands-end of England to the C. of Cornwall, the coast lyeth north about 5 leagues, but Silly and the foresayd Gape lye southwest & northeast distant about 9 leagues. By the Cape lyeth a little Island or Rock, called Bresam, betwixt it and the Cape men may sayle thorough. Iſland Breſan

From the Cape of Cornwall unto the little Towne Saint Yves, lyeth the coast about east and by north, and east northeast five or sixe leagues. Saint Yves lyeth upon the west point of a great Bay, which is about two leagues broad. At the east point of the Bay lyeth a little Island, there lyeth of from it great ledge of rocks, a great halfe league thwart of into sea, where of many of them come at halfe ebbe above water, therefore he that commeth of from the Cape of Cornwall, and will sayle alongst the coast towards Stoupert of Padstow, must keepe of; thwart of this ledge, at least a great league from the shoare, because of the foresayd rocks. Betwixt that foresayd little Island at the east point of the Bay and the mayne land, it is also at many places rocky and foule, so that one that is not there very well acquainted, may not sayle through there without great danger. In the Bay of Saint Yves is on both sides good sandy ground, where men may anchor all over, and come so neare the shoares as they will. At the west-side of the Bay at the Towne, is a head where small shippes and Barkes doe goe in within it, and lye there succoured for northerly windes, but great ships may not doe so, they must anchor without in six or seven fathom. Saint Yves.

From.

From S. Yves to Hartland point, the courſe is n.e. 17 or 18 leagues, betwixt them both about halfe way lyeth the point of Stoupert, to the eaſtwards of it lyeth Padſtow in a Bay, where is a very good road in 7 or 8 fathom. At of that point lyeth a ſuncken Rock under water, and upon the point a great hig rock, to the weſtwards of that point towards S. Yves, are many white ſandy & chalcky bayes alongſt the ſhoare, whereby the coaſt there is very eaſy to be knowne.

Stoupert. Padſtow.

Hartlandt point is a point that lyeth out, foure leagues north from it lyeth the Iſland Londey, which is ſomewhat along Iſland, it lyeth moſt north and by weſt, and ſouth & by eaſt. At the eaſt-ſide of that Iſland men may ride for weſterly windes in 14 and 15 fathom, but on the weſt-ſide the ground is foule.

Hartlandt point.

Foure leagues to the eaſtwards of Hartland point eaſt-ſoutheaſt from the ſouth-end of Londey, lyeth the ſound of Biddeford, being a broad haven, where many ſhips doe ſayle in and out. A little within the mouth of the haven, it divideth it ſelfe into two rivers, upon the weſtermoſt on the ſtarboard ſide lyeth Biddeford, and upon the eaſtermoſt on the larboard ſide lyeth a town called Barneſtable.

Biddeford. Barneſtable.

From the point to the northwards of Biddeford Haven, unto Ilfercombe the courſe is eaſt northeaſt 4 leagues, that is a haven where remaineth at low water 3 or 4 fathom deepe. Before the haven is alſo good roade, in 8 or 9 fathom at halfe flood.

Eleve or twelve leagues to the eaſtwards of Ilfercombe, lye two little Iſlands, about two leagues north and ſouth one from the other, called the Holmes, the northermoſt is called the Flatholm, and the ſouthermoſt the Steepholm, betwixt Ilfercomb and the Holms (ſomewhat nearer the Holms then Ilfercomb,) lyeth a little towne called Mynehead, where many ſhips do lade.

Ilfercombe. Flatholm. Steepholm.

In the fareway betwixt Ilfercomb and the Holmes, on the Engliſh ſide; on the one ſide, and the bankes on the Welſh ſide on the other ſide, in the middeſt of the channell it is deepe 30, 25, 20, 18, 16 and 15 fathom, the nearer the Holmes the ſhoaler water. When men come from the weſtwards within the Iſland Londey, then they may ſee the Land on both ſides, to wit, of Engeland and Wales. The Engliſh coaſt even from the C. of Cornwall to the Holmes is altogether cleane, but the coaſt of Wales is moſt all foule and ſhoaly, from the Iſland Caldy unto Biſtow, with many bankes, ſands, and riffes that lye of. The Holmes and the Iſland Londey lye w.ſ.w. and eaſt n.e. diſtant 19 leagues.

He that will ſayle from Londey to Briſtow, muſt run alonghſt by the Engliſh coaſt, untill that he come within the point of the Naes, for to avoyd Naes-ſand, and then forth alongſt through betweene the Holmes, leaving the Steepholme on ſtarboard, and Flatholme on the larboard ſide. Men may alſoo with little ſhips, of ſmall draught, ſayle about to the ſouthwards of the Steepholme, but it is there ſo ſhoaly, that there remaineth at low water no more then two fathom water. Under Steepholm men may anchor where they will, in 4 or 5 fathom.

Road under Steepholm.

He that commeth off from the Naes, and is bount to Briſtow, muſt ſtand over to the Steepholme, and run alongſt to the northwards of it. It lyeth from the Naes eaſt ſoutheaſt about ſeven leagues.

For to ſayle through betweene the Holms, the right and beſt fareway, you muſt ſayle neareſt the ſide of the Flatholme, there is deepeſt, with an open wind men may ſayle alongſt ſoo neare by it without any hurt, that they may caſt with a ſtone upon it. Within, or to the eaſtwards of the Holmes, lyeth ſhooting of from the eaſtland, a great ſhoale, lyingh of with a great tayle towards the weſt, which (comming from the weſt) men migt eaſily ſayle within. For to avoyd it, you muſt ſet the Flatholm (when you are paſſed it) ſouthweſt from you, and keepe it ſtanding ſo, untill that you ſhall have ſayled about a great league, looke out then for a little Iſland, that ſhall then at the caſt ſhoare lye neere about thwart from you, upon it ſtand two mils, & above upon the maine land ſtandeth one mill. When the Mill that ſtandeth upon the high land commeth to the weſt end of that foreſayd Iſland, you ſhall bee paſt the foreſayd tayle of the Engliſh grounds, and can not ſayle within it, goe then e. n. e. alongſt by the Engliſh grounds, which are flat, ſo that you may ſayle alonghſt by them upon your lead in 3 or 4 fathom, ſo neare as you will. When then the Mill that ſtandeth upon the hig land, commeth betweene the foreſayd two Mills which ſtand upon the little Iſland, then ſhall you bee altogether paſt the Engliſh grounds, run then boldly towards the Engliſh coaſt, and ſo cloſe alongſt by it, as you pleaſe, toward Paſſis or Portſhut point. From the Flatholm to Paſſis point in the rigt fareway, it is deep 14 and 15 fathom. The Welſh ſide you muſt ſhun, and take very good heed of it, becauſe it is very uneven and full of ſteep bankes that are needle to, which at many places do fall dry at low water, you may not come nearer that coaſt then in 12 fathom, for (ſayling towards it) you ſhall have at one caſt 10 fathom, and before you can heave the lead againe, you ſhall ſit faſt, alongſt from Flatholm till you come to Briſtow. About Paſſis point men do anchor in Kings road which is between the point and the river of Briſtow, neareſt the river there is good clay ground in 8 or 9 fathom. They that are bound into the river are brought in by the Pilots. Men may from thence alſo ſayle in alonghſt by the coaſt to the River of Severne, which is alſo like the River of Briſtow, a fayre River to ſayle into.

Kings road.

For to ſayle from Briſtow to Londey, you muſt goe away from Paſſis point w.ſ.w. untill that the Flatholm doe come to beare ſouthweſt from you, or els untill that the 3 foreſayd Mills upon the ſouthland doe ſtand a like farre one from the other, to wit, that which ſtandeth upon the high land, doe ſtand in the middeſt betweene the other 2, ſayle then rigt with the Flatholme, and very cloſe alongſt to the ſouthwards of it, and beingh paſſed it, goe then forth weſt-ſouthweſt unto the Iſland Londey.

About 3 leagues to the northwards of Flatholm lyet the Town Cardief in Wales, being a tyde haven, before it is a good road, as well for ſhips that are bound to the weſtwards as to the eaſtwards, where men may lye landlockt allmoſt for all windes, to the eaſtwarts & to the northwarts of it lye many ſands & bankes, which fall dry at low water, and ſo that they make men landlockt for northeaſt & by eaſt winds. Hee that is bound into the roade before Cardief, comming from the weſt, muſt runne in betwixt Flatholm & the point of Cardief, lying ſomewhat to the ſouthwards of Cardief, & being come about the point, then to the northwards up alongſt by the ſhoare unto the road.

Cardief.

Cloſe up to the point of Cardief, to wit, to the weſtwards of it, lye two little Iſlands, the one next to the point, is called Silye, and the weſtermoſt Barrey: Betwixt Silye and Flatholme lyeth a rock, ſoutheaſt and ſoutheaſt & by eaſt from the point, which muſt bee avoyded when you will ſayle throug there unto the roade of Cardief. When it is high water you may ſayle over all that which at half ebbe commeth not above water.

Silye. Barrey.

About five leagues weſt from the point of Cardief lyeth the Naes, to the weſtwards of it the land falleth away firſt about northweſt, then afterwards ſouthweſt, or ſouthweſt and by weſt, & ſo maketh a great bay betwixt the Naes & Wormeſhead, where there are very good roads for weſt, north, northeaſt, and eaſt winds.

The Naes.

From the Naes a little from the ſhoare lyeth a great banke, Naeſſand, which lyeth of from thence weſt & by ſouth, & weſt ſouthweſt at leaſt 5 leagues into ſea. From Wormſhead likewiſe lyeth of a banck which is very ſteep, called Helwix, about 4 leagues ſouth ſouthweſt, and ſoutweſt and by ſouth into ſea, they that come from the eaſtwards, and will goe to ride in the Bay betwixt the Naes & Wormeſhead, runne alongſt cloſe by the point of the Naes, through betwixt the Naes and Naeſſand, likewiſe they that come from the weſtwards, & are bound in there, may run throug cloſe alongſt by the point of Wormſhead and the Helwix, it is betwixt them both about an Engliſh Mile broad. He that commeth out of the ſea, may come in betweene the foreſoyd ſands or bancks, it is there wide and broad.

Naes-ſand. Helwix

Wormſhead is a point lying farre out, appearing a farre of allmoſt like the Oldhead in Ireland, but it is above or under, & goet ſloping downe towards te north, it that in many places chalky ſpots, whereby it is very eaſy to bee known.

Wormes head.

About foure leagues to the weſtwards of Wormeſhead lyeth

Caldy. lyeth the little Island Caldy, where upon standeth a white Tower, shewingh of at Sea like a white sayle, which is set there for to know the land by.

Betwixt this Island & the point of Wormshead, the land falleth away with a great Bay to the northwards, unto Carmarthen and Tinbuy, in this Bay it is all over good anchor ground for to ride. On very side of the Island Caldy men may also anchor, and have shelter for all windes. A little to the northwards of Caldy lyeth a rane of suncken Rockes,

Wullox called the Wullox. He that will saile about to the eastwards of the Island, to Tinbuy, may runne close about by it, up to the westwards, throug betwixt the Island and the suncken Rockes, leaving them on the starboard side, or else he may run alongst also to the eastwards & to the nordwards of the suncken Rocks leaving them on the larboard side, & so then also to Tinbuy, & anchor there before the Towne in 5 or 6 fathom. To the eastwards & to the northwards of the foresayd Rockes, it is also good anchorage in 6, 7 or 8 fatum, it is there all cleane ground, and farre of shoale water. Men may also sayle throug to the westwards of the Island Cady (which is between the Island & the point of the maine land) to Tinbuy, but it is there narrow, yet cleane, & deep enoug.

River of Carmarthen. The River of Carmarthen lyeth from the Island Caldy n. e. & by north distant about 4 leagues, the channel for to saile in there, lyeth in e.n.e. on the east or the south side lyet a great Bank which lyeth of far from the shoare, & on the off-side goeth of flat. For to saile in there men may sound it in alongst by the east or north-shoare, until they be over the shoalest of the barre, there is upon it at half flood about 14 foot water, and being over the barre, it wil be againe 4 fathom deepe or thereabouts, then they may run in forth by their lead alongst by the south-shoare, until they come within the River.

S. Gawens-point. Foure or 5 leagues to the westwards of the Island Caldy, lyeth S. Gawens-poynt, the south-poynt of Wales, by some called the white poynt. About halfe an English mile s.s.w. from this poynt, lyeth a sunken rok, called the Crow,

The Crow. where of men must take heede.

Milford-Haven. Two leagues to the westwards of S. Gawens-point lyeth the Haven of Milford, a broads and wyde sound, lying in at the entry n. e. in, being come in within the points, men may goe up to the northwards, eastwards and southwards, unto divers places & roades. About by the nord-point, men may saile unto Daleroade, there it is good lying in 3 fathom and 3 fathom & a half at low water. When men come a little within the south-point in the open of Milford-haven, there lyeth a little Island or Rock like that Newstone by Plymouth, being past that a little, they may run to the southwards, into a bay where they may lye landlokt for al winds.

Stockholm. A little to the westwards of Milford-haven lye two little Islands the southermost is the smallest, called Stokholm, &

Scaline. the northermost Scaline. About 2 leagues n. n. w. or n. w.

Ramsey. and by north from thence, lyeth the Island Ramsey, there

Broad. betwixt them hath the land a great Bay, called the Broad-bay. Ramsey lyeth at the north-point, and Scaline at the south-point of the Bay, there in alongst the shoare is good ryding for n. n. e. and s. s. w. windes, in 7, 8 and 9 fathom. Upon the north-point of this Bay lyeth a little Towne, cal-

Saint Davids. led S. Davids to the northwards of lyeth the coast of Wales alongst n. e. unto Cardygan.

About 2 leagues west & by south to Seawards from the Island Scaline, and 3 leagues southwards from Ramsey, lyet

Grasholm. that little Island Grasholm, which is a round cleane rok, & about 4 leagues from it lye also two little lands, which are

Smalles. fowle, called the Smalles. The lying of them, with the dangers thereof, you may reade in the description of Ireland.

On the north west-side of the Island Ramsey lyeth the

Bishop with his Clearcks Bishop with his Clearcks, these are Rockes that lye of to the northwards and southwestwards of that Island a good way to Sea. About 5 leagues n. w. of somewhat northerly

Mascus. from Ramesey lyeth another great Rock, called Mascus, which is al round about foule, with many sunken Roks. He that commeth to saile there abouts, or to lye by, must take very good heed of them.

The Island Ramesey, or the north-poynt of Wales, and the southeast-point of Ireland, lye about e. s. e. and w. n. w. distant 16 leagues.

Of the Tydes and Courses of the Streames.

In Mounth Bay and at the Lands-end of Engeland, a west southwest & east northeast Moon maketh high water.

In Silly a southwest and by west Moone maketh full Sea.

A Seaboard of Silly in the channell likewise a s. w. & by west Moone.

In the entrin of the channell a southwest and n. e. Moone.

From Silly to the Lizard the Flood falleth northeast & the ebbe s. w.

Betwixt Silly & Londey the Flood falleth n. e. & the Ebbe s. w.

In Silly a southwest and by west Moone maketh high water.

On the coast of Engeland betwixt the cape of Cornwall and Hartland-poynt a w. s. w. and by s. Moon maketh high water.

Thwart of the Island Londey a west and by south, but on the Island, an east & west Moone.

At the Island Londey, and at the Holmes, an east and west Moone maketh high water.

At Bristow within, a west and by north Moone maketh full Sea.

At Mildford-haven an east and by north, and west and by south Moon maketh high water.

In the channell of Bristow betwixt Londey and the Holmes, the Flood falleth e. n. e. and the Ebbe w. s. w.

Within the Holms towards Bristow, the Flood falleth n. e. and by east, and the Ebbe s. w. and by w.

Betwixt Londey & Midford, the streame falleth n.e. & n. e. & by east.

Of the Depths.

Men may see on Silly the south-side in 52 fathom, and the ground there is stony, with some red shels.

The Lands-end of England, men may see also in 25 fathom.

Silly may be seene on the north-side in 45, 46 and 48 fathom, there the ground is oasy, with some little stones amongst it.

When men are to the northwards of Silly, it sheweth first in two Islands, upon the eastermost they shall see a Tower or little castle, to the eastwards of the two Islands, they shall see also two great hilly Rockes, and to the westwards three high black Rockes.

West northwest and west and by north 10 or 11 leagues from Silly, the ground is oasie and soft that men can scarce get any of it upon the lead, there come some little shells amongst it.

Betwixt the Lands-end of England and Londey in the fareway, it is 45 fathom deepe, the land of Cornwall, men may see in 44 fathom.

Three or foure leagues without the land thwart of S. Yves, Stoupert, or Padstow, the ground is sharpe and Rocky, but neerer the land it is all sandy ground.

Betwixt S. Yves and Hartlands-point are many white Chalky hils alongst the coast, especially neere by Stoupert or Padstow, whereby this coast is to be knowne.

In the Channel betwixt the Holmes and Bristow, it is deep 12, 13 and 14 fathom, and men may see the land on both sides.

Upon the coast of Wales about Milford, and to the northwards of it, men may see the land in 42 and 45 fathom.

Courses and Distances.

From the Lizard to the Lands-end, w. n. w.	9 or 10 leagues
From the Lands-end to Silly, w. s. w.	8 leagues
From the Lizard to the Gulfe, the course is west and by north	10 leagues
From the Lands-end to the Gulfe, the course is s. s. w.	3 leagues
From the Gulfe to Silly west	5 leagues
From Silly to the Caskets east, somewhat southerly	55 leagues
From Silly to Ushant, the course is s. e. and by south	35 leagues
From Silly to C. de Finisterre, s. & by w. somewhat westerly	150 leagues
From Silly to cape Cleare in Ireland n. w. and by north	46 leagues
From Silly to Waterfoord, north and by west	40 leagues
From Silly to the cape of Cornewal, n. e.	9 leagues
From the cape of Cornwal to S. Yves, east and by north	5 leagues
From S. Yves to Stoupert-poynt, n. e. and by east	9 leagues
From Stoupert to Hartland-point, n. e. and by north	9 leagues
From S. Yves to Hartland-point, n. e.	18 leagues
From Hartland-point to the Island Londey, north	4 leagues
From the C. of Cornwal to Londey, n e. & n.e. & by north	25 leagues
From the cape Cornwal or Milford in Wales, n. n. e.	32 or 33 leagues
From Silly to Milford, n. n. e. somewhat easterly	46 leagues
From the cape of Cornwal to the Rock Tuskat, nord & by west	40 leagues
From the cape of Cornwal to Waterford, n. n. w.	40 leagues
From the west-end of Londey, to Biddeford e. s. e.	5 leagues
From Biddeford to Ilfercomb, e. n. e.	4 leagues
From Londey to the Holmes e. n. e.	20 leagues
From the Steepholme to the river of Bristow, n.e. somewhat easterly	12 lea.
From the Steepholme to the Naes, w. n. w. about	7 leagues
From the Naes to S. Gawens-point, west, somewhat northerly	13 leagues
From S. Gawens-point to Milford-haven n. w. and by north	3 leagues
From the Island Scaline to Ramsey n. n. w.	2 leagues
From Londey to Milford north & by west & n. n. w.	12 or 13 leagues
From Milford to the cape of Cornewal, s. s. w.	32 leagues
From Milford to Silly s. s. w. & s. w. and by south	40 leagues.

Heights.

The south-side of Silly lyeth in	50 degrees, or a little more
The cape of Cornwal lyeth in	50 degrees 25 minuten
Londey lyeth in	51 degrees 13 minuten
The Holmes lye in	51 degrees 30 minuten
Milford in	51 degrees 46 minuten
The Island Ramesey in	51 degrees 50 minuten.

How

De Zuyd ooſt zyde
YERLAN
Van Dubling tot aen't
Corckbeg
't Amſterdam
By Iacob Theuniſz op't
inde Loots-man

Corck beg
Kara Quin oſte
C. de Quin
Iochul
Iouchal
Balicotton
Cotton ile
't hoge Landt van
Dungarvan
't hoge Landt van
Ardmore
Capel ile
Ardmore caſtel
Ardmore point
Dungarvan
C. Dongy
Roße
Wiborſs
Waterfoort
Clookrod
Hytree
Chickenpoint
Seven Wells
Paſſage
Dunbrody Abb.
Creek point
Creden head
Balihack
Duncanon
Bumhil
Houcketour oſte
toorn van Waterfoort
Bannough
Ahlimhaven
Balategh
caſt
Saltea
Kinnor
Kinkig
Blacrock
Carnarvon
Caliſh
Scakum
Kamey
I. Smeals

Duytsche mylen 15 in een graet

Spaensche mylen 17½ in een graet

Eng. en Fra. mylen 20 in een graet

Dubling

Klantarf

Ringsondt

Poulbeg

Suycker broodt

Dalke

Sondt van Dalke

Bray

Brakel

Wyngaets

Wicklo

Wicklo eylant

Arkeloo

Glasserman Point

Chappelmalen

Glasserton

Trochil

Smalleeck

Blauwe steyle hoeck

Glasserick

Carickom

Witte clippen

Columns

Kinsale

Kinsale oste

Swart castel

Inter ammon oste

With castel

FORD

CATERLAGH

DUBSJE

SANDT

Masscus

T

How theſe Lands doe ſhew them ſelves at Sea.

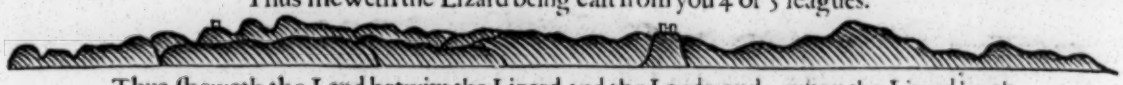


Thus ſheweth the Lizard when it is 5 or 6 leagues eaſt and by north you.

Mounts Bay. The Lizard.



Thus ſheweth the Lizard being eaſt from you 4 or 5 leagues.



Thus ſheweth the Land betwixt the Lizard and the Lands-end, when the Lizard lyeth about eaſt and by north, and Mounts-bay north from you.

Lands-end n. n. w. Mounts-bay n. e. by n. and n. n. e.



Thus ſheweth the Lands-end, and the Land to the eaſtwards of it, when it is north north-weſt, and Mounts-bay is northeaſt and by north, and north northeaſt from you, being a league from the land.

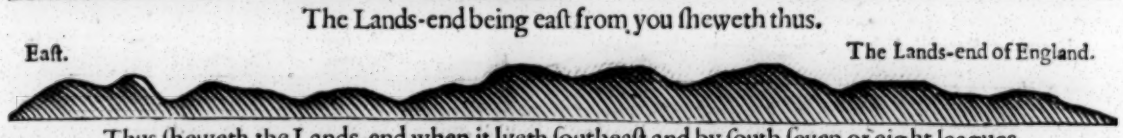


The Lands-end ſheweth it ſelfe thus, when you come in right within out of the ſea.



The Lands-end being eaſt from you ſheweth thus.

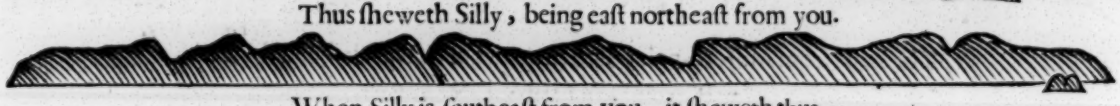
East. The Lands-end of England.



Thus ſheweth the Lands-end when it lyeth ſoutheaſt and by ſouth ſeven or eight leagues from you, and the round Hill to the northwards of it eaſt, then you may even ſee the low land betwixt them both.



Thus ſheweth Silly, being eaſt northeaſt from you.



When Silly is ſoutheaſt from you, it ſheweth thus.



When Silly is eaſt 5 or 6 leagues from you it ſheweth thus.



Silly, being ſouthweſt from you, ſheweth thus.

When Silly is ſoutheaſt and by eaſt from you, it ſheweth thus.



Thus ſheweth the land betwixt the Lands-end of England, and de C. of Cornwall, or the Iſland Breſam, when you are on the Back-ſide of the Lands-end.



Thus ſheweth the C. of Cornwall, when it is eaſt and by ſouth from you, ſo farre that you may but even ſee it from the poop.



Thus ſheweth the Land betwixt the Cape of Cornwall, and Saint Yves, when it is about four leagues from you.



Thus ſheweth the Land, when you are before or thwart of Saint Yves, about five leagues without the land.



To the weſtwards of Stoupert ſheweth the Land thus, when you ſayle alongſt by it 2 or 3 leagues without the land



The Land to the eaſtwards of Padſtow or Stoupert ſheweth thus, when it is two leagues eaſt and ſouth from you.



The Land of Stoupert or Padſtow ſheweth thus, when you ſayle alongſt by it, 3 or 4 leagues without the Land.



When the Iſland Londey is north from you, it ſheweth thus.

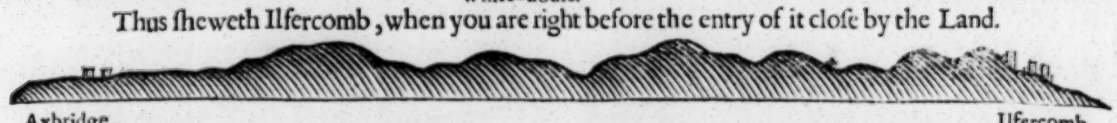


When the Iſland Londey is n. n. w. from you, it ſheweth in this forme.

The entrauce of Ilfercomb.



Thus ſheweth Ilfercomb, when you are right before the entry of it cloſe by the Land.



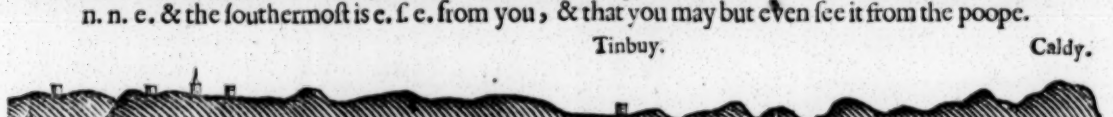
Thus ſheweth the coaſt of England betwixt Ilfercomb & the Holmes, when you ſaile alongſt by it.



Thus ſheweth the Land of Wales, from Cardief to Wormeſhead.



Thus ſheweth the coaſt of Wales, betwixt the Iſland Caldy & Milford-haven, when the northermoſt is n. n. e. & the ſouthermoſt is e. ſ. e. from you, & that you may but even ſee it from the poope.



The Land betwixt Tinbuy and Milford ſheweth it ſelfe thus, when you ſayle alongſt by the Land, as is pourtrayed in the two figures, as the A A belonget one to the other: the ſpire of the Tower of Tinbuy is very white.



The Land from Milford-point unto the point of S. Davids-head ſheweth, as is pourtrayed in theſe two Figures.



From Milford to Tinbuy, men ſaile alongſt by the coaſt, about 4 or 5 points it is moſt plaine land like ſand-hils. About 2 leagues to the weſtwards of the point of Tinbuy, ſtandet a Spire Tower, with two other ſmal flat litle Towers more, whereby the coaſt thereabouts is eaſy to be knowne.

The ſixth Demonſtration,

WHERE IN

The Southeaſt and eaſt Coaſts of Ireland is Deſcribed, betweene Corckbeg and Hedenhoo or Houth.

FRom the Lands-end of England to Waterford, the courſe is n. n. w. with that courſe you ſhal fal rigt with Waterford. But from Silly to Waterford, the courſe is north and by weſt, ſomewhat northerly 40 leagues: Betwixt both it is all oaſie and ſoft ground. Nine or ten leagues in the offing from Ireland lyeth a ſand banck of 40 fathom deepe, where commonly Fiſhermen lye to fiſh, that is a certaine mark of the diſtance of the land, when you finde it in cleare weather, and when there is good ſight, then you may ſee the high Mountaine of Dongarvan.

The hill of Dongarvan.

If you ſaile from the Lands-end of England with a n. w. courſe 43 leagues, ſo ſhal you fal before the Liver of Corkbeg, it is there a good way upwards with a low water 7, 8 and 10 fathom water.

Corckbeg.

Foure leagues to the eaſtwards of Corck-haven lyeth an Iſland, called Ballecorton, within in men may ride for weſterly & ſoutherly windes, in 4, 5 or 6 fathom. Corck and Jochull lye e. n. e. and w. ſ. w. diſtant ſeven or eigt leagues.

The haven of Jochull is a broad Haven, where men muſt in at high water, by the eaſtland it lyeth in n. w. and n. w. and by north. The weſt-ſide is a ſandy ſtrand al alonghſt to the towne. Jochul

About a league ſouth & by weſt from the havens mouth of Jochull lyeth a little Iſland called Chappell: under it on the eaſt-ſide is a good road. He that commeth before Jochull at a low water, may goe under that foreſaid Iſland to ride there, and ſtay for the laſt quarter flood, then there is 4 fathom water upon the banck. At the weſt-point of the Havens-mouth lyeth a rocke within it. About halfe waves to the towne ſtandeth a Priory, before it men may ride, they may alſo edge over to the eaſt land, and then run up the River. Within it is 3, 4 and 5 fathom deep. From the eaſt-ſide lyeth a rane of rockes, at leaſt halfe wayes over in the Havens-mouth, a little without the roks it is at low water no more then 5 or 6 foot water, but at high water it is deepe enough. Chappel-Iſle.

Foure

Foure leagues to the eastwards of Jochul, lyeth Dongarvan Haven, betwixt both lyeth an out point: a little to the eastwardes of it standeth a high blacke Tower, called Ardimore, which may be seen wel 4 leagues at Sea, with it is a Bay, which is a good roade for westerly windes in 7 or 8 fathom.

Dongarvan is a narrow Tyde-haven, the mouth of the Haven is ful of Rockes, & at low water it falleth drye, men must goe in there at high water, and runne in throug betwixt the Rockes, it lyeth in n. n. w. within it is deepe enoug. The Towne Dongarvan lyeth upon the west-side of the haven. From Dongarvan to Waterford are 8 leagues.

Within Dongarvan, n. n. w. landwards in, lyeth the mountaine of Sleges, which men doe cal the high mountaine of Dongarvan, or cape de Quin, or Caray Quin, it sheweth it selfe with three exceding hig Hommockes, fair above all other landes thereabouts, men may see it at Sea alongst a great part of the south-coast of Ireland.

When you shal have that mountain n. n. w. from you, & sayle in rigt with it, you shal fal rigt with Dongarvan.

When you shal have it north from you, and saile in rigt with it, then you shal fal with Jochul, being n. n. e. then you shal fal with Corck, but when it shal bee n. w. and so run in, you shal fal with Waterford.

The Haven of Waterford lyeth about 5 leagues to the westwardes of the southeast-point of Ireland, being called Carnaroort, the coast betwixt both lyeth e. n. e. and w. s. w. and sheweth it selfe in offing, within the land, with hig hilles two and three double one above the other, but the Sea-side it is al low land, where you may see many flat Towers upon it, as you saile alongst by it. The east-point of the Haven is a low Rock-point, but it is cleane, upon it standeth a hig white flat Tower, called the Tower of Waterford, which you may se farre of at Sea, & is a perfect mark to know this haven by, there stand many more flat Towers to the westwards alongst the coast, but this is better to be seen then all the rest, because it is white and higher then the other. The west-point is a high and fowle point, there lyeth a shoale s. s. w. of into Sea, from it the channel is broad and cleane without it, it is 11 and 10 fathom deep, and in the havens mouth 7 fathom, and somewhat further in 6 fathom, it lyeth in north and north and by west, within this river within the point is a good roade in 4 or 5 fathom, a league within the Rivers-mouth there lyeth on the west-side a steepe poynt, from thence beginneth a shoale lying to the northwards alongst the shoare unto the steep point of Passage, & shooteth over from that point with a taile, towards the east-shoare. Passage is a village where men passe over, lying on the west-side of the River, a little to the northwardes of the foresaid steepe point.

Betwixt that village, and that point on the west-side is a good roade very fit as wel for them that are bound out, as for them that are bound up. In sailing up you must take hede of a little shoale that lyeth of by castle (standing on the east-side of the River) somewhat thwart over, the River downwards, at hig water there is no more then two foote water upon it, a man that looketh for it, may see it, it is also flat that a man may sound it. About halfe a league northwards up the River from Passage, there goeth another river westwards up to Waterford.

About halfe wayes betwixt the Haven of Waterford and the point Carnaroort, lye two little Islands about half a league from the shoare, called Saltees, the southermost is the greatest & lyeth distant from the Tower of Waterford, directly east almost 3 leagues. Betwixt these two Islands you may sayle throug in 5, 6 and 7 fathom, but you must keep neerest the smallest or northermost Island, for to avoid some suncken Rockes that lye at the north-end of the great Island, and at low water are drye.

From the northermost of smallest Island of the Saltees towardes the maine land, lyeth of a ledge of Rockes where men where wont to goe over on foote, but now may sayle over. For to sayle betwixt the Saltees and the main land, you must leave two thirds of the distance of water from the Islands; and one third part from the mayne, and you shal have at low water about 2 fathom deepe.

About a half league without the southermost Island of the Saltees, lyeth a rock above water, called Kinbeg, and s. w. about so farre from it, and south and by west from the south-end of the Saltees lyeth a sunken Rock, called Kimor, of the bigneste of a ship, it cometh with halfe ebbe even bove water, it is so steepe that a man may lye with a ships side against it, and have 14 fathom water, so that a man (without any danger) may sayle alongst by it, as neere as he wil. A man may also (if need require) saile throug betwixt Kinberg and the greatest Island of the Saltees, but a Seaboard of al is best and secureste. Kinbeg

Kimor.

To the eastwards of the rock Kinbeg, s. e. from the greatest Island, of the Saltees, lye also some sunken rockes called the Frailes, which may be seen at low water, there men may also saile throug within them n. e. from the Saltees lye also rockes, the southermost is called the Tuns, and the northermost the north rocke. The Frailes.

Tuns and north Rock.

North n. e. from the greatest Island of the Saltees, of from Kinbeg and s. w. and by south from Carnaroort, lyeth one Rock above water, called Blackrock, that is cleane & cleare round about, so that a man may sayle round about it freely, without feare of danger. But a quarter of a league eastwards from it, lyeth a suncken Rocke, called the Barrel, of that a man must take heed. Black-rock.

Barrel.

Under the Islands of both the Saltees, a man may ryde, under the greatest at the northwest-side neereste the north-end: the marke or knowledge of the road is, a black Rock like a boat turned upside downe, rigt against that you must anchor in 7, 8 or 9 fathom, there it is good sand-ground, & land-lockt for an e. s. e. s. e. and a south winde, a s. w. winde bloweth alongst the shoare. If you anchor neere the shoare in 5 fathom or there about, there it is roug ground. Road under the Saltees.

Under the smalleste Island a man may ryde at the east-side in 7 or 8 fathom, so that the north-point of the Island lye n. n. w. from you, there you shal lye neere the landt-lockt for s. w. and n. w. windes.

From the point of Waterford the shoare lyeth to the eastwardes, within the Saltees, e. n. e. until Carnaroort, with many bayes, & al oasie & blak sandy. A man being acquainted there, should at a need in many places finde roads, there is nothing that can hurt you except a little fowle place a little to the westward of Carnaroort close by the shoare.

He that commeth out of Waterford, & wil goe about to the southwards of the Saltees, must go more easterly then e. s. e. for to go cleare of the sowle grounds, which lye to the southwardes of the Saltees, and when the Saltees shal be north of him, then lyeth the course thence to the Tuskar, directly n. e. or little more easterly. But for to go alongst without the Tuskar, a man must goe at least n. e. and by east to goe cleare of him. For to avoyd the fowle gronds of the Tees.

The Tuskar is a great black smooth Rock, lying like unto a ship turned up-side down, but is about twice so great, at the north-side of it lye also two smal Rockes under water. The Tuskar lyeth from the point of Grenoore s. e. & by east, and e. s. e. distant one league: from the Saltees n. n. e. 4 leagues and a halfe, from black Rok also e. n. e. two leagues and a halfe, and from the Lands-end of England north and by west. Tuskar.

Southeast and by south about 10 leagues from the Tuskar, lye two little Island close one by another, about 4 leagues from Grasholme, called the Smaels, at high water and spring-tydes the water floweth over them, the northermost is called Scakum, & the southermost is called Kamay, there lye of in the Sea two little shoals from them, the one n. n. w. and the other s. s. e. Betwixt the Smaels and Grasholme lyeth also a ledge of Rocks, which at low water may be see above water. It is not without great danger to goe throug betwixt them both, especially with calmes, by reason of the tyde that runneth very strong there throug an east southeast Moone maketh high water without the Smaels. Smaels.

From the Tuskar east & by south about 8 leagues, lyeth also a great Rock, with many smal Rockes round about it, called Mascus. He that commeth from England and wil sayle towards Ireland, must take great heed there of, especialy when as throug westerly or northely windes he shal be dryven a little to the eastwards of the course. Mascus Rock.

For to anchor under the point of Carnaroort, comming

Road under Carnaroort. from the weſt, you muſt take heed to come no neerer the ſhoare then in 6 fathom, untill that you ſhall be paſſed by the hig hill that lyeth to the weſtward of the point, when you ſhall have brought out the Mill to the eaſtwards the length of a capſtane barre, then you may anchor in 9 fathom. There is very good riding.

From Carnaroort to S. Margats-bay, the ſhoare lyeth along n. e. a league, it is betwixt both Rocky & fowle, but the fowle ground lyeth not farre of at Sea. For to keep cleare without it, you muſt keepe ſo far of the ſhoare that you may ſee the topps of the double land within about the cliffe land, and you need not farre, but if you come ſo neere the ſhoare that double land within be covered of the foremoſt cliffe land, or that there by it get out of your ſight, you ſhall then ſurely ſayle upon the foreſayd Rockes.

By S. Margets-bay upon the foreſayd land ſtandeth a Gentelmans-houſe in the hills, when you have brougt that with the Mill that ſtandet within, one in the other, then you may goe into the roade, and leave the Rockes which lye above water half wayes over it Bay, either on ſtarboard or larboard of you, ankor there in 5 or 6 fathom, ſandy-ground.

Caliach About ſ. ſ. e. from S. Margets-bay of at Sea, lyeth a ſunken Rocke, that at low water lyeth dry, called Caliach, for to avoid it, take heed unto theſe markes: when you come from Carnaroort, & have black Rock with the great Iſland of Saltees one in the other, & keep them ſo, and then ſayle

Marks for Caliach. on n. e. you ſhall goe right upon this ſuncken Rock. For to goe to the ſouthwards of it then keepe black Rock with the ſmalleſt Iſland of the Saltees one in the other, or els for to goe on the northwards of it, keep Black-rock without or to the eaſtwards of the great Iſland, and then you ſhal not need to feare any danger of this ſuncken Rocke.

From S. Margets-bay to the poynt of Grenore, lyeth the coaſt n. e. halfe a league.

The poynt of Grenore is not very hig, but ſteep & flat on the toppe, of from it goeth a ſhoale about a quarter of a league into Sea eaſt and by ſouth, of very Rocks & ſtones, the which at low water falleth dry a good wayes of the ſhoare. The ſhips comming from the ſouthwards that are bound for Dublin or Waſhford, goe in commonly betwixt the Tuskar and the foreſaid Rockes of Grenore, for to come within the banck or ſands. Oftentimes they goe into Waterford for to hire a Pilot to bring them up. For him that will be his owne Pilot, wee will deſcribe all the marckes that are to be taken heed of, as well for to ſayle into Grenore, as alſo into the deep or haven of Waſhford, as they are now at this time, and hereby doe adviſe men that they doe not alwayes continue ſo, becauſe by reaſon off the Floods, the channell doth ſhift, and ſtreth it ſelfe out more northerly, and alſo waxeth deeper.

Riffe of Grenore.

Comming out of the Sea about a league or two neere unto Grenore, you ſhal ſee the hig ragged double land hig above the point of Grenore, which (as is a foreſaid) is not very hig, but flat on the top. By that ſaid hig rigged double land within, men do know the entrance of the channel of Waſhford. When men doe come from the ſouthwardes and the eaſtwardes. When you have ſight of the poynt of the Grenore, you may boldly goe rigt with it until that ſaid double land to ſhew it ſelfe, by eſtimation, but a mans lengt above the point of Grenore, as ſheweth this Figure.

The high Land over the Poynt of Grenore.



The Stat Fooreland of Grenore.

THen are you farre enoug from the ſhoare, not to bee in any danger of the ſhoale of Grenore: Or els you may fit you ſelfe that you come no neere the ſhoare then in 6 or 7 fathom: but yet for need a man may borrow of the ſhoale in 5 fathom, or 4 fathom and a halfe, but you muſt alſo take heed that you goe not ſo farre of from it that you have more then 8 or 9 fathom depth, otherwiſe you ſhould come to neere the banck that lyeth to the northwardes of the Tuskar, which on the inner-ſide is very ſteepe and needle to, upon it is no more then 12 foot water, and cloſe by it tenne fathom deepe. If that you keepe the foreſayd ragged high Land (as is beforeſayd) a mans length above the land of Grenore, and ſo ſaile to the northwardes, ſo long untill you bring that ſame high Land without or to the northwards of the ſteepe poynt of Grenore, then are you yet right againſt the ſhoale and muſt yet ſayle to the northwardes, keeping the Mill that ſtandeth next unto the poynt of Grenore, ſo that you may ſee the top of it even

Green-bay. right over the ſteepe point of Grenore. When you keepe it ſo, you ſhall not be in any danger of that ſhoale or riffe. Then as ſoone as you ſee a caſtle (which ſtandeth a little without the ſtrand) come within the point of Grenore, then may you boldly ſaile towardes it, by your lead, into the Bay of Grenore.

The ſay Mill ſtands upon the land of Grenore, a little within the land, that may ſerve for a marck for not to come to neere as well to the ſhoale as alſo to the ſhoale or riffe, for if you come not ſo neere the ſhoare that you looſe the the Mill out of your ſight, but keep ſo farr off, that you keep ſight off it, then doe you keepe farre enoug from the ſhoare, and from that Rocke ſhoale or Riffe. Then when the Mill ſhall come to lye ſ. w. and ſ. w. and by ſouth from you, then you are even paſſed the ſhoale or Riffe, goe then n. w. and by weſt, and n. w. according as the winde and tyde ſhall be into the Bay of Grenore.

Or els you may obſerve another marcke: Sayle on ſo longh north, untill that you ſee a long black houſe come out to the weſtwards of Grenore, upon the low land, the which ſheweth like a black rock upon the land: then you may luf on towardes the ſhoare in 4 or 5 fathom alongſt by the Riffe, and run in ſo untill that you get 6 or 7 fathom, & preſently afterwardes ſhall be 8 or 9 fathom deepe, but then afterwardes it is ſhoale by little and little, as you come neere the ſhoare.

If you have a large winde: then ſayle ſo long to the northwards untill you ſee another little black houſe come out without the poynt, ſail then unto it, you ſhall (ſo doing) have no danger off the riffe.

In the Baye it is ſhoale water, you may lye there ſo neere the ſhoare as you pleaſe in 6, 5, 4 and alſo 3 fathom, and there you can get a Pilot to bring you to Waſhford.

For to ſaile out off the Bay of Grenore, you may run out ſo cloſe by the ſhoare, that you may ſee but the wings of the Mill over the Foreland, and ſo goe on eaſt ſoutheaſt into Sea alongſt by the Riffe, or according as the winde and tyde ſhall be, ſo long untill that you may ſee the roofe of the Mill, then you may goe larger, and by little and little goe more ſoutherly, and then you ſhall ſee it ripple upon the Riffe.

For to ſaile out of the Bay of Grenore towards Waſhford with a ſhip that draweth little water, you may boldly runne alongſt by the ſhoare, and ſayle through betwixt the Haenmans-path and the Souder, that is a channell where at high water and ordinary tydes is 8 foote water, but with a ſpring-tyde there is 10 foot water.

The Haenmans-path is a dry ſand, which maketh the ſouth-ſide of the Channell of Waſhford, lying of from the Souder.

The Souder that is the ſouth-point of the mayne Land of Waſhford-haven.

But if your ſhip goe deeper, then you muſt (ſayling out of Green-bay) goe further of from the ſhoare, for to come without the ſand that ſhooteth of from Haenmans-path, yet you muſt alſo take heed that you goe no to farre thereof, for if you come ſo far off in 10 fathom, you ſhall come to neere unto the Banck that lyeth without, which is on the inner-ſide very ſteep and needle to, therefore go no further from the ſhoare then in ſeven, eight or nine

nine fathom, but commingh ſomewhat more northerly about Haenmans pat, then you may goe of in to ten and eleven fathom; alſo you may not come neerer Haenmans path then in ſeven fathom.

If you deſire to be upon the barre of Waſhford and to leave the ſhoale af Haenmans paths, to wit, to goe to the northwards, then take heed unto theſe marckes: At the north-ſide of the channell of Waſhford lyeth a high hill with a round hommock, which is to bee ſeen over the Foreland, and a little caſtle in the low land, a little above the ſtrand, appearing as if it were againſt the land; bring that round hommock a little to the northwards of the caſtle, and ſayle ſo in, but bringh not the hommock within or to the ſouthwards of the Caſtle, for then you ſhould bee in danger of the ſand of Haenmans paths, unleſſe it were by neede, and with a bare winde, then you might borrow ſo neere to bring them one in another, & ſo to ſayle in, but it is beſt to keep them ſomewhat out one from another, to wit, the little Caſtle to the ſouthwards of the hommock.

If it ſhould happen that you could not ſee theſe foreſayd markes well, nor diſcerne them, then you may goe about the ſand of Haenmans paths by your lead in ſeven fathom without any danger.

For to know then when you are far enough ſayled to the weſtwards, or are paſt Haenmans path, and are open before the channell, you ſhall ſee in the ſouthland a little Caſtle that ſtandeth about foure leagues in the land within the ſtrand, in the ſide of the high land of Waſhford, about ſouthweſt and by weſt from you, when that ſhall bee upon that point from you, and that it ſtandeth betwixt the two northermoſt little ſandhills that are upon the foote ſtrand of the Soundre (which is upon the ſouth ſhoare) then are you paſt Haenmans paths; ſayle in then upon the marks of that little Caſtle, and the little ſandhills over the barre of the haven; there it is at high water about 16 foot deepe.

As ſoone as you are paſt the outermoſt flat at the point of Haenmans paths, you ſhall goe ſomewhat neerer to Haenmans paths although it bee very ſteep, that the tyde doth not bringh you upon the tayle of the north ground where the maſt ſtandeth, that is a foremaſt of a ſhip that is there loſt, and lyeth there ſuncken into the ſand, by the foremaſt the north grounds are very ſteep and needle to, but without and within very flat going up.

In this channell & upon the Barre an eaſt & weſt Moone maketh higheſt water: but the flood runneth yet afterward a half tyde ſtrong by the channell to the northwards; ſo that when it is higheſt water in the channell and upon the Barre, yet runneth the tyde thwart over the channell, therefore a man muſt keepe him ſo neere to Haenmans paths, as it ſayd, that is the cauſe that tayle of Haenmans path is caſt up ſtill more and more to the northwardes, and that the channell now lyeth out more to the northwards then it was wont to doe: And yet hereafter it is like that it will ſtretch it ſelfe more to the northwards, ſo that the foreſayd markes (by all likelyhood) wit not continue certaine alwayes. Even as the flood after the higheſt water, runneth yet a halfe tyde or tree houres ſtrongh (in the channell) to the nortwards, ſo alſo runneth the ebbe a half tyde to the ſoutwards after the loweſt water, but not ſo ſtrongs as the flood.

Being over the ſhoaleſt of the Barre, you ſhall have 3 & a half, and 4 fathom, and in the channell betwixt the north ground Haenmans paths againſt the maſt 5 fathom depth. runne in by Haenmans paths, all alongſt untill you come to the foot ſtrand, and then edge over to the north ſhoare, for to avoyd the grounds which lye to the weſtwards above the Soudre, you may borrow of the ſhoale on the northſide by your lead, into 10 or 11 foote, according to the draught of your ſhip. In the rigt deepe of this edging over, you ſhall have at high water, 15 foot depth.

The marke if this edging over is a white little caſtle that ſtandeth on the north-ſide of the haven in the valley of the Land, when that commeth over the ſteep point of the innermoſt Iſland to the two that lye by the north ſhoare, & ſeemeth to be about a mans length high, then you may boldly run in northweſt wit it, untill that a litle chappell within the Land, and to the ſouthwards of Waſhford (a little or about a cables length to the northwards of that other forenamed little Caſtle on the northſide of that high ragged land, that hath ſerved for a marke to ſayle over the Barre) commeth over a black hommock that you may ſee upon the high land, a little to the ſouthwards of the Caſtle of Waſhford, when you ſhall have brought theſe marks one in the other, edge then over again to the ſouth land upon the marcks, for then you ſhal be above the ſands of the Soundre: and with that courſe alſo ſhall not be in danger of the tayle of the ſand that ſhooteth off from the point of Paſſage, which is on the north-ſide, but it is therebroad & large, that a man may there turne to and againe, it is altogether ther ſhoale water, of 10 & 10 foot & a half at high water. Saylingh up upon theſe foreſayd marcks you ſhall come about the diſtance of te ſhot of a Cat peece without the caſtle of Waſh ford to the ſouth ſhoare, ſayle then in alongſt by it, & keep on the ſoundingh of the ſhoare untill you come within the caſtle, there you may anchor, & ſhal finde there about 3 fathom water; for a man that is there unaquainted, it is beſt to anchor there, becauſe before the towne lye ſome ſunken rok; he that wil lye before the town, muſt (right againſt the kay, or te head of the market) go a goodways of te ſhoare, becauſe of a ſuncken rock that lyeth thereabouts, & go rigt againſt the weſt-end of the towne, and anchore there in 3 fathom, or thereabouts.

To the ſouthwards of the ſands, that lye to the weſtwards or above the Soudre, goeth a dreeke through, there is more water then in the eding over to the northwardes of the ſands. The marke for to ſayl through there, is: That you keep the higheſt hommocks of the high ragged land (behind Waſhford) right over the caſtle of Waſhford, but there can be northing gotten by it, with ſayling through there, in regard you muſt nevertheles go over the ſhoaleſt, after that you are paſſed the ſand of Soudre, to wit, over the foreſayd depth of 10 and 11 foot.

For to ſayl out from Waſhford, with a ſhip that goeth deep, you may not lade deeper then 10 foot, or 10 foot & a half for to come over the foreſayd ſhoale; you ſhall then ſayl about to te northwards of the ſhoale that lyet within, or to the weſtwards of the Soudre, & goe in & anchor betwixt the ſhoale & the Soudre, there you ſhal be landlockt for all windes, except for the ſouthweſt winde you have little ſhelter, you ſhal therefore bring out your beſt anchor, in the ſ.w. and the other in the northeaſt, becauſe that the winds that come out of the ſouthweſt over the land, doe not but you upon the north grounds. There at the Soudre, you may take in the reſt of your lading, it is a league from the towne.

If you wil anchor before the Barre of Waſhford for to ſtay for the tyde, you muſt anchor a little to the northwards of the Barre, & go of ſomewhat until you have 8 fathom, there it is cleane ſandy ground.

In the night there are two fires made upon the Soudre for the Fiſhermen for to come in by night, by the Haenmans paths, he that will ſayle in by them, muſt keepe the higheſt fire a little to the ſouthwards of the other, for to avoyd the north grounds.

Beſides the deepe alongſt by the Haenmans paths, the Fiſhermen have a little channell that goet out cloſe by the north ſhoare, it is there about 6 foot deepe at high water. Channell through the bancks before Waſhford.

From the Barre of Waſhford a man may ſayle eaſt and by ſouth, and weſt and by north out and through betwixt the bancks into ſea, or out of the ſea, that is a large and broad channell.

For to ſayle from the Barre of Waſhford within the ſands throug towards. Dublin, you muſt keepe the ſounding of the ſhoare, and runne alongſt by it in ſixe, ſeven or eight fathom, you ſhall ſo ſayle alongſt about a cables length from the ſhoare, which is very cleane without any danger, ſo that any man (having but a little know ledge of the Land) may ſayle there alongſt by night, only you muſt take heed not to goe further from the ſhoare then in 7 or 8 fathom, for not to come foule of the banckes, which are on the innerſide veri ſtepe and needle too.

When you have ſayled to the northwardes alonghſt by the ſhoare, about two leagues from the Barre, you ſhall ſee three white ſpots or rockes in the ſand-hill, a little to the northwardes there of ſtandeth a peece of a wall, much like a pillaer of a Church: Right againſt this Pillar, a great

Engliſh mile from the ſhoare, beginneth a ſand, called the Ruſch and Ramme, lying from thence alongſt the ſhoare to the northwardes, you may ſayle about it on both ſides, but it is beſt to keepe the ſhoare, and to runne through there within in 6 or 7 fathom, as is ſayd out of feare of the outtermoſt banckes, which are very ſteepe, and therefore cannot be ſounded; Therefore men doe ſeldome uſe to ſayle there a ſeaboard of this ſand.

Right againſt this forenamed Ruſch and Ramme, the ſhoare maketh a Bay unto the point of Glaskarrick, when you are ſo farre as this point, then you are paſt the foreſayd ſand.

Point of Glaskarrick. The point of Glaskarrick is a low point, a little to the northwards of it ſtandeth a caſtle.

Channell throug the bancks before Glaskarrick. When you are with out the banckes in the north channell, & deſire to come within the banckes, then keepe that caſtle (if you can get ſight of it) a little to the northwards of the low point, and runne boldly right in with it, unto the land, without feare of the grounds, there is a good channall, through the banckes; you ſhall not finde leſſe depth then 15 or 16 fathom, untill you come to the ſhoaling up againſt the ſhoare. This channel lyeth in northweſt.

For to ſayl from Glaskarrick to Dublin, run all alongſt by the ſhoare (which is ſomewhat full of Bayes) and keepe you (as before) in 8, 7 or 6 fatum. Two great leagues to the nortwards of Glaskarrik, lyeth a ſand, a great halfe Engliſh mile

Glaskarmen from the ſhoare, called the Glaskarmen, the ground is very uneven betwixt both. But nevertheles run through within that ſand and keep the ſounding of the ſhoare, but not ſo far from it, that you come into ten fathom, for then you ſhould ſayle cloſe alongſt by the Glaskarmen, which is very ſteepe, and about two Engliſh miles, or a halfe Dutch mile long.

Arkelohead. One Engliſh mile to the northwards of Glaskarmen lyeth the point of Arkelohead.

Markes for to avoid the Glaskarmen Sayling through between the ſhoare and Glaskarmen, to the northwards, a man may ſee two points to wit, Mizanhead and to the northwardes of it Wicklohead. If you keepe Wicklohead even within the point of Mizanhead, then you can take no hurt of the Glaskarmen. But if you would ſayle a ſeaboard of the Glaskarmen, then keepe Wicklohead a good wayes without the Mizanhead, and ſo runne alonghſt a ſeaboard of it, and you can take no hurt of it: But if you keepe the point of Wicklohead but even without the Mizanhead, you ſhall not fayle to ſayle upon the Glaskarmen.

Ledge at Arkelohead. At the north point of Arkelohead lyeth a little ſtony ledge very ſteepe and needle to. A man muſt take good heed of it (comming from the northwards) and bound to the ſouthwards, and then muſt come no neerer it then in five fathom, towards the ſhoare lye ſome little rockes above water: when you come from the northwards, and thoſe little rockes are weſt northweſt from you, then are you paſſed it, to wit, to the ſouthwards of that ledge; and then you may againe borrow of the ſhoare, upon the lead, commonly men doe keepe ſo farre of the ſhoare, that they kan take no hurt of the foreſayd ledge.

At the north-ſide of the point of Arkelo is a faire ſand-bay, there is a good anchor ground, and all over good riding in 8, 7 or 5 fathom, in this bay are good ſtore of herrings caught.

For to ſayl in to the Channell before Arkelo. Right againſt Arkelo runneth alſo a channell through the banckes into the ſea. For to ſayle in there out of the ſea, looke out for a round hill within the land: bring that weſt northweſt, or weſt and by north of you, and ſayl then in there boldly, keeping it ſo. But if you bring the round hill weſt of you, and ſayle ſoo in, you ſhall ſayle upon the point of the north groundes, it is in that channell about ſeven or eight fathom deepe.

About an Engliſh mile to the northwards of the point is the river of Arkelo but very ſhoale, at high water there commeth no more then ſixe foot water.

The coaſt of Waſhford unto Wickelo lyeth moſt north and by eaſt, a little more eaſterly: But he that will ſayle without alonghſt by the banckes or ſandes, muſt not goe more northerly then north northeaſt, for to avoyd the gronds which lye about Wickelo, 3 leagues of from the land. And to the ſouthwards the ſouth grounds lye ſcarce a league from the ſhoare, there not long ſince a pilot keeping bad reckoning run without the ſands alongſt north & by eaſt, and ſayled thwart of Arkelo, behind a tayle of ſand that lyeth of from the north to the ſouthwardes, and he loſt his ſhippe. Arkelo lay from them (when they ſat upon the ſand) weſt and by ſouth.

Mizanhead. About two leagues to the northwards of Arkelo lyeth Mizanhead it is a black head. Betwixt Mizanhead and Arkelo in the fareway it is 8 and 9 fathom deep, it is alſo betweene them both alongſt the whole coaſt, good anchoring and cleane ground.

Wicklohead. From Mizanhead to Wicklohead it is alſo two leagues, but this reach is ſhorter then the other to Arkelo.

Wolfe. One Engliſh mile to the ſouthwards of the point of Wiklo, lyeth a little rock cloſe by the ſhoare, called the Wolf, it commeth at half tyde above water, the Fiſhers boats run through within it, but it is not to be done wit ſhipps.

Right to the ſouthwards of Wicklohead, ſomewhat further out then the point, lyeth alſo a rocky ſand, called alſo the Horſe-ſhoe, cloſe unto the point, about ſouth & by eaſt from it a man ſhould for need (when hee cannot do better) ſayle through there within it, but he muſt be very well acquainted with it, or els not well to be done; without, it is more certainſe and beſt going of ſomewhat to deep. If you keepe the point of Brohead a little without Wicklohead, then you can take no hurt of it, or if you keep the hig inner land, ſo that you may even ſee it above the land of Wicklo, & goe not altogether hidden behinde it, then you goe there without in 5 fatum. The point of Wicklo is ſteepe & ſtony with a double top little hill, within ſtandeth a litle chappell, when you can ſee that through the ſaddle of the hill, then you are right againſt it, and have it on your ſide; the village of Wicklo lyeth to the northwards of the point in the Bay, there is a litle haven, which at hig water hath ten foot water.

Horſe-ſhoe.

In the Bay the ground is ſo hard and chindell, that the anchors doe not hold there, but without the Bay ſomewhat farre from the ſhoare towards the Banckes, the ground is ſomewhat better.

Channell throug the bancks thwart of Wicklo Thwart of Wicklo alſo is a channell through the bancks for to ſayle that out or in, keepe the Caſtle of Wiklo, that you may ſee it open of the point, thereupon you may boldly ſayle out or in.

Forteene Engliſh miles from Wicklo lyeth the point of Brae, a high ſteep ſtony point, and the hig land there about on the ſea coaſt.

Betwixt Wicklo and Brae lyeth out a flath point with a little Fiſher village, called Nicaſtell, there (ſayling alongſt) you have foure, five and ſixe fathom deepe, but from the flat point unto the ſteepe point of Brae, it is wel 14 fathom deepe, the land lyeth there about north and north and by weſt.

Sugarloafe. Within the land lyeth a high hill, of faſhon like a Sugarloafe, that is the fartheſt in the land of three hills, which they call the Tineyards, when you have them through one another, and are northweſt, and keepe them, then may you boldly thereupon run through the banckes into ſe', or out of the ſea, by theſe markes you may come in within the banckes that is a very large and broad channell.

Thwart from that foreſayd Sugarloafe to the ſouthwards of Brae lyeth a bancke that is not deeper then 4 fathom, very ſtony and ſharp ground.

Brahead. Brahead is very ſteep, likewiſe alſo the ground by it, is 10 fathom deepe cloſe by the ſhoare, to the northwards of the point lyeth a little tyde-haven, there ſtand the houſes called Brae on the north-ſide.

Iſland Dalke. From Brahead to the Iſland Dalke (lying at the ſout.. point of the Bay of Dublin) the courſe is north and by weſt 4 Engliſh miles, there betwixt both in a bay.

A the northeaſt-ſide of the Iſland Dalke lye ſome roks, lying alongſt the maine not far from it. Men ſayle within the Iſland through and leave al the rocks & the Iſland lyet to ſeawards.

The Sound of Dalke. The Sound betwixt the Iſland Dalke and the maine land, is called the Sound of Dalke, it lyeth north northweſt, and north and by weſt through, it is 7, 8 and nine fathom deepe, men may anchor under the Iſland, neareſt the Land, there is good ſandy ground, or ſomewhat further

ther in, there lyeth a round Rock, neareſt to the maine land, there men may make faſt a cable on it, & anchor thwart of the channell, towards the other Rocks, becauſe of the tydes, for the tyde runneth there very ſtrong throug. A ſ.ſ.e. and a ſouth and by eaſt winde bloweth there right in, but in regard it is there very narrow, there can goe no great Sea, with a ſoutheaſt winde you are land-lockt of the Iſland, and a ſouth winde commeth of the maine land.

From the Iſland of Dalke, untill you are paſſed the village of Dalke, the ſhoare lyeth n. w. and by w. before the village you have ſome ſuccour for a ſ. e. winde, the winde being more eaſterly, you lye in the upon Sea. You lye there in 8 or 9 fathom the nearer the Iſland the deeper, the place
Berton Road. is called the Berton road, you may not anchor further to the weſtwards then before the village: to the weſtwards of the village the ground is foule and ſharpe.

The north-point of the Bay of Dublin, called Houth or Hedenho, is a very high point it ſeemeth a farre of as if it where an Iſland, but it is faſt to the mayne land with a ſmall and very low necke: to the northwards of it lye the Iſlands Yreland-eye and Lambey, thoſe may bee ſeene (being to the ſouthwards of the point Houth, & being before the entrance of Dublin) over that foreſayd ſmall Neke of Land.

From the ſound of Dalke to the Barre of Dublin, the courſe in n. n. w. the fareway it is deep 9, 8, 7, 5 & 4 fatum, how nearer the Barre the ſhoaler water. When you ſayle up, you muſt kepe the weſtermoſt Rocke that lyeth without at the Iſland of Dalke, a hand-ſpikes length open of the Iſland, or the other Rockes, & ſhall ſo come before the entrance, without having any let or hinde rance of the ſand. Or you may ſaile more to the eaſtwards rigt towards the low land of the norther ſhoare, & then by your lead alongſt by it to te Barre.

If you come from the northwards, you may runne in cloſe about the point of Houth by your lead, and then all alonghſt by the Norther-ſhoare, untill you come to the mouth of the Barre, there alonghſt it is the deepeſt water, but towards Dalck it is ſhoaler. From the ſouth-ſhoare runneth of a great tayle of ſand, allmoſt unto north ſhoare. To the northwards of it goeth the deep in. Upon that
Paerſing. tayle a little within the point ſtands a beakon of a maſt, made by the Engliſhmen called the Paerſingh.

Markes of the Land. For not to come neare this foreſayd ſand, comming from the ſouthwards, loke out for the Iſland Yrelands-eye, keep that ſo, that you may but even ſee it over the low land cloſe after unto the hig land of Houth, ſo you can take no hurt of that ſand. When the Tower of S. Patrickes in Dublin which ſtandeth on te land ſide of Dublin, commeth rigt over that beakon the Paerſing, then are you yet rigt againſt the point of the Sand, which ſhooteth out a good way to the northwarde of te Paerſing. For to goe cleare of that, you muſt run ſo farre to the n. w. untill the Paerſing commeth rigt over a litle caſtle with three turrets, or litle Towers, which ſtandeth to the ſouthwards to the Town, or when the Paerſing commeth betwixt that foreſayd little caſtle and the Towne, then are you above the point of the ſand, then goe in w. and by ſ. untill you come over the ſhoaleſt of the Barre, there is at ſpring-tyde 15 or 18 foot water, but at low water & neep-tyde, not more then 6 foot, you may ſound it on bot ſides.

Road in Poelbergh. When you are over the ſhoaleſt of the Barre, then anchor within the ſand by the beakon in Poelbergh there it is at hig water 4 fathom deepe. The marke of this road is, that you bring that a foore written hill like the Sugerloafe (that here before is ſpoken, of, & ſerveth for a marke for to ſayle by into the Channell of Wicklo) over an other lower hill, then are you in the beſt of the road, bringh out your beſt anchor in the ſ. w. againſt the blowing of the ſ. w. windes, which ſometimes come powringh downe there very ſtrong out of te ſ. w. over the hig land, & the other in the northeaſt. At low water the ſands lye dry there round about the road.

Road by Klantarie. Men may alſo anchor ſomewhat further in, at the nortſide of the ſound, rigt againſt a village called Klantarie in a Pool where at low water remainet 9 or 10 foot water: but round about the ſhip (as it is in moſt places of the haven) it doth fall altogether dry, ſo that there a ſhip hath but even rome to winde up to & again. Men do moore there ſ.ſ.e. & n.n.w. A ſ. e. and n. w. Moon maketh there the higheſt water.

If the ſhips that come there be any thing greet, they muſt ſtay in Poelbeg, cloſe before the Town it is very ſhoaly, and falleth at low water altogether dry: with an ordinary tyde men cannot come before the Towne with a ſhip that draweth 5 foot water, but with a ſpring-tyde with ſhips that draw 7 or 8 foot water.

At the north-ſide of the River, a little further out then the Town, right over againſt Ringſend, lyeth a little Iſland, within it is fit to make ſhips cleane.

The ſands or bankes that lye alongſt this eaſt-coaſt of Ireland from the Tuskar unto Dalke, are on the out-ſide, or on the eaſt-ſide very ſteepe & needle to, ſo that men may not come nearer them then in 24 and 25 fathom, in 20 fathom men are cloſe by them, they are not deeper at ſome places then in one fathom & a halfe: but at the north-end by Dalke, about 2 fathom & a halfe, & 3 fathom deepe, all ſtony-ground, and lye on the of-ſide alongſt n. n. e. & ſ.ſ.w. at the north-end they lye about 8 Engliſh miles from the land. If you are bound for Dublin, & will go without theſe ſands, run then ſo far to the northwards, untill you can ſee the litle Iſland (Irelands-eye) without the point of Houth or Hedenhoo, run then right on to Houth or Hedenhoo, and then you ſhall take no hurt of the north grounds.

Markes for to ſayle without the bancks.

Of the Tydes and Courſes of the Streames.

Betwixt Corckbey, alonghſt the Coaſt before Waterford into the point of Carnaroort, the Iſland falleth alongſt the coaſt e. n. e. & the ebbe w. ſ. w.

At Waterford an e. and by n. and w. & by ſ. Moon maketh high water.

Without the land in the fareway betwixt Sylly and Ireland, a ſ. w. & by weſt Moone maketh high water.

In the channell or entrance of Waſhford, an e. and w. Moone.

The Flood runneth there to the northwardes, after high water a halfe tyde, and the Ebbe contrariwiſe to the ſouthwards, a halfe tyde after low water, but not ſo ſtrongh as the flood.

On the eaſt-coaſtes of Ireland to the ſouthwards of the bay of Dublin, a ſ.ſ.e. and n. n. w. Moone maketh high water.

At Dublin a ſ. e. and n. w. Moon.

The Flood runneth from the Tuskar without the banckes alonghſt betwixt Ireland and England n. n. e. and the Ebbe ſ.ſ.w.

On the coaſts a ſ.ſ.e. and n. n. w. Moone maketh high water.

The Flood commeth here from the ſouthwardes, and alſo from the northwards, about the north part of Ireland, and meete one another about right againſt Carlingford, where they ſtoppe one the other. The Ebbe contrawiſe falleth (to the northwards of Carlingford) to the northwards, and (to the ſouthwards of Carlingford) to the ſouthwards.

Of the Depths.

From Corckbey to the eaſtwards unto Waterford men may ſee the land in 24 fathom, the moſt part of the ſouth-coaſt of Ireland men may ſee it in 35 and 40 fathom. In 35 fathom you ſhall not be farre from the land, therefore come no neerer Ireland by night then in 40 fathom.

Courſes and Diſtances.

From Corkbey to Waterford, the coaſt lyeth moſt, e. n. e.	10 or 20 leag.
From Waterford to the Iſlands of the Saltees eaſt, but to goe about to the ſouthwards of them e. ſ. e.	3 leagues
From the ſouth-end of Saltees to black-rock n. e. and by eaſt	2 leagues
From Blackrock to Carnaroort, n. e.	1 league
But to Grenore	2 leagues
From the Saltees to the Tuskar e. n. e. but from without the foule ground to the ſouthwardes of the Saltees n. e. and n. e. and by eaſt	5 leagues
From Blackrock to the Tuskar, e. n. e.	3 leagues
From the Tuskar to Grenore, n. w. and by w. and w. n. w.	1 league
From Grenore into Grene-bay firſt n. w. and by n. & then w. n. w.	1 league
From Greene-Bay to the Barre off Waſhford, north and north and by weſt	1 great league
From the Barre of Waſhford unto Waſhford about one league and a halfe	
From Waterford to Graſholm, e. and by ſ.	21 leagues
From the Tuskar to the Rock Maſcus, e. and by ſ.	8 leagues
From Tuskar to the Rocks Smales, ſ. e. and by ſ. about	10 leagues
From Tuskar to the Lands-end of England, ſouth and by eaſt, ſomewhat northerly	43 leagues
From Waterford to the Lands-end of England, ſ.ſ.e. but to Silly ſ. and by e. ſomewhat ſoutherly	43 leagues
From the point of Glaskarik to the point of Arkelo, n. and by e.	4 great l.
From Arkelo to Mizanhead, n. & by e. ſomewhat eaſterly	2 leagues
From Mizanhead to the point of Wicklo, north and by eaſt ſomewhat eaſterly	2 leagues
From Wicklohead to the flat point by Nicaſtle, north	2 leagues
From Nicaſtle to the point of Brae, north, and north by weſt and a third part.	2 leagues
From Wicklohead to Braehead, north, and n. and by weſt	5 leagues
From Braehead to the Iſland of Dalke, north and by weſt	2 leagues
From Dalke to the Barre of Dublin, n. n. w.	2 leagues and a halfe
From the Sound of Dalke to the point Hout, n. p. e.	2 leagues and a halfe
The Banckes lye from the Tuskar to the North-end, north northeaſt and ſouth ſouthweſt.	
From the Barre of Dublin to Holy-hill in the Iſland Angleſey, eaſt and by ſouth	19 leagues
From the Barre to the Town Dublin, w. ſ. w.	2 leagues.

Heights.

Waterford, or the Tower of Waterford lyet	52 degr. or a little more.

How

How theſe Lands doe ſhew them ſelves at Sea.



The land a little to the eaſtwards of Kinſale ſheweth thus.



The land to the eaſtwards of Corck towards Jochull, ſheweth in this forme.



Old ruineth Houſes.

The Rocks betwixt Jochul and Corck.



When you are to the eaſtwards of Corck not far from the land, & that the Harbours-mouth dot begin to open, then ſheweth the land as it is deſcribed in theſe two Figures, at the AA, belonging one to the other, being neare the land it ſemeth to be high land, but a far of (when you can ſee the high innerland, within Jochull over the cliffe land) it ſeemeth to be but low.

Inner-land, far within the Land.

Inner-land north and by weſt.



Mount of Jochul.

Theſe two Figures belong at the BB, one to the other.

Dongarvan.



When you are before Jochull, or thereabouts, (two or three leagues from land) ſo that the high mountaine of cape Quin be north and by weſt from you, then ſheweth the land thus, the double innerland is very high blew land, you may ſee it in cleare weather twelve or thirteene leagues of



Corck. Rock. Jochull.

The high land of Dongarvan.



Theſe two Figures belong at the CC, one to the other, and is the forme of the land betwixt Corck and Jochull.

North northweſt.



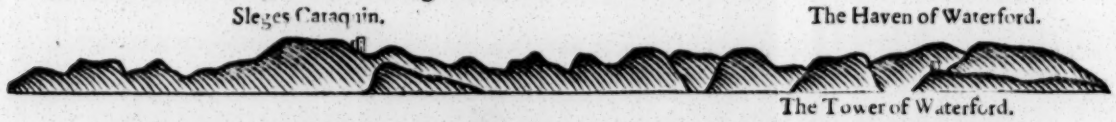
The high land of Dongar van ſheweth thus, being north northweſt from you.



Thus ſheweth the high land of Dongarvan, when the weſtermoſt-end of it is northweſt from you.

Sleges Cataquin.

The Haven of Waterford.



The Tower of Waterford.

Thus ſheweth it ſelfe the land about Waterford, and to the weſtwards, with the high land of cape Quin, or Cara Quin, when you come towards the land.



Thus ſheweth the Saltees, when they are 3 or 4 leagues weſt and by north from you.

Grenore.

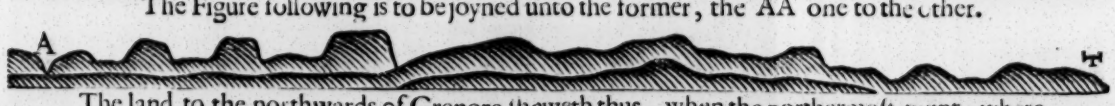


Thus ſheweth the land between the Saltees and the point of Grenoort when it is about two leagues from you.

Grenore.



The Figure following is to be joyned unto the former, the AA one to the other.



The land to the northwards of Grenore ſheweth thus, when the northermoſt-point, where the croſſe ſtandeth over, is north and by weſt about five leagues from you, and Grenore ſouthweſt and by weſt, ſo farre that a man may but even ſee it from below, & then a man may ſee the Tuskar, from the top in the ſouthweſt.

Sugar-



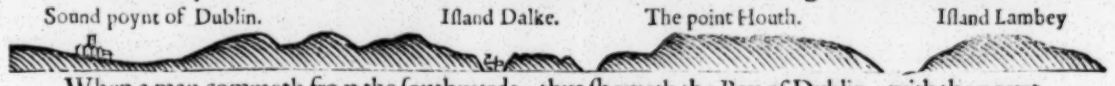
Thus ſheweth the coaſt of Ireland when as Sugarloafe is n. w. and the poynt of Brahead n. w. and by north about 7 leagues from you. When as Sugarloafe commeth n. w. and by weſt from you, then may you ranne ſo in, over the north-grounds through a broad channell of 9 and 10 fathom deepe.



When the Sugarloafe is thwart from you, it ſheweth with the high land within it, thus.



Thus ſheweth the coaſt of Ireland betwixt the Sugarloafe & the Iſland Dalke, lying at the ſouth-point of the Bay of Dublin, when a man is about Brahead, one or two leagues from the land.



When a man commeth from the ſouthwards, thus ſheweth the Bay of Dublin, with the poynt Houth, and the Iſland Lambey to the northwards of it.

The ſeventh Demonſtration,

Where in are Delineated

The Northeaſt-Coaſt of Ireland betweene Hedenhoo or Houth, to Hoornhead.

THE north-point of the Bay of Dublin called Houth, is round about cleane, ſo that a man may ſaile round about it. To the northwards of it lye the Ilands of Irelands-ey & Lambey. Irelands-ey is the ſmalleſt, it lyeth betwixt the aforeſaid point Houth and Lambey: At the weſt-ſide of it ſtandeth a little Chappel, right againſt, it you may ride. At the ſouth-end lyeth of a ſtony raffe which muſt be avoided. Right over againſt that Iſland in the maine land lyeth a haven for ſmall ſhips, at a little town called Malcheal.

Ire-lands-ey.

Mal-cheal.

Under Lambey you may ride upon the north-ſide for a ſoutherly winde, in 12 and 13 fathom, but for a Sea winde, you muſt ſhift unto the weſt-ſide by a Gentlemans-houſe, and anchor there, but it is not very good lying there, becauſe alwayes there commeth in a great Sea.

Lam-bey.

About 6 leagues n.w. & by north from Lambey, lyet the Haven of Drodagh, betwixt them both (neareſt Lambey) cloſe by the land lye roks, called the Skires. About 2 miles to the northwards of Lambey lyet a great rock called Roch a Bill, you may run round about it on the both ſides.

Drodagh hath a narrow crooked haven, which is not good to come into without a Pilot, or ſome one that is well acquainted with it.

Dro-dag.

Foure or 5 leagues to the northwards there of lyeth the haven of Dondalk, which is very ſhoale, and little uſed, at low water a man may go over a foot.

North & by weſt about 11 leagues from Lambey 7 leagues to the northwards of Drodagh, and two leagues from Dondalk, lyeth the haven of Carlingford: the north-point of that haven is ſomewhat foule and rocky, but you may goe in about it by your lead: the ſouth-point is very foule with rocks and ſuncken rocks, which you muſt ſhun, and runne in by the northerne ſhoare: Some ſay that men may runne in throug betwixt the Rocks and the ſouther-point with ſmall ſhips, but it is not without danger. When you are within the ſuncken rockes, you muſt runne over to the ſouther-ſhoare, and in alongſt by it, untill you come before the Town of Carlingford, & anchor there in 6, 7 or 8 fatum, ſo ſhallow as you will, you may ſayle in upon the oaſe and ſave a ſhip without anchor or Cables. Green-caſtle lyeth at the northeaſt-ſide of the haven, 2 miles from Carlingford.

Car-lingfort

Green-caſtle.

About 7 leagues n. e. from Carlingford, lyeth a point called S. Johns point: betwixt both about halfwayes lyeth the mount of Carlingford, a hig Mountain. From S. Johns point lyeth of a ledge of Rockes, whereof you muſt take heed. A great league to the northwards of S. Johns point, lyeth Arglas, from thence forth to the haven of Strangford it is three ſmall leagues.

Saint Johns Point.

Arglas.

From the North-point off the Haven off Strangford, lyeth of a foule ledge of Rocks. A little of from the ſouth-point lyeth a ſuncken Rocke, which at half Ebbe commeth above water. For to ſayle into this Haven, you muſt leave this ſuncken Rocke on the larboard-ſide, and goe to the northwards of it, but muſt take good heed of the foreſaid ledge at the north-point. A man may alſo goe in throug to the ſouthwards of the foreſaid ſuncken Rocke, betwixt it and the point (but to the northwards of it) is the beſt and the broadeſt Channell. Somewhat further in lyet alſo another ſuncken Rocke at the northeaſt-ſide, that muſt bee left on the ſtarboard-ſide in going in. When you come ſo farre as Audleys Caſtles, there you may anchor or runne in about the point on the larboard-ſide, and anchor there under it.

About a league and a half to the northwards of Strangford lye the Rockes South-Rocke and North-Rocke, of them read as followeth.

From Strangford-haven to the Northwards lyeth the coaſt forth n. n. e. 1 league unto a point, which ſome doe call the point of Arglas, other the point or head of Molines, from thence falleth away the coaſt unto the Bay of Knokfergus n. n. w.

By the foreſaid point of Arglas or Cape of Molines, to witt, to the northwards of it, two little Miles, lye two great Rockes: the ſouthermoſt is called the South-Rocke, it lyeth about two Mile, to the Southwards of the Northermoſt, called the North-Rocke. From the ſouth-end of the South-rocke lyeth a ledge of Rockes at the leaſt two Miles of, alſo one from the northeaſt-point a great wayes northeaſt of into the Sea. The North-Rocke is a great Plate of Rocks, where of many at high water are under water. There goeth alſo from it a foule ledge of unto the land, ſo that a man may harely ſayle throug betwixt the Rocks and the maine land, except a man be extraordinary well acquainted. But betwixt the North-rock & the South-rock goeth a faire broad Sound throug, where men may well turn too and again, and at many places may anchor, it all over good clean ſandy ground, 6 or 7 & 8 fathom deep.

Point of Arglas.

Cape de Molines.

South rock.

North rock.

From the eaſt-ſide of the ſouthrocke unto the Iſlands at the eaſt-point of the Bay of Knockfergus, called Koppen, or Kopland Iſles, the courſe is n. n. w. or ſomewhat more northerly, about 6 leagues: for when men ſaile from the eaſt-ſide of theſe Iſlands to the ſouthwards, with a ſ. ſ. e. way, they goe farre enoug without the north and ſouth roks. There betwixt them both lye divers more litle Iſlands, Rocks, and ſuncken Rocks, and ſhoals, for the which men muſt take good heed when they will come neare by the ſhoare.

The Kopland Iſles lye about an Engliſh mile from the land, they are upon the off-ſide to Seawards, cleane, but from the inner-ſide there goeth of ſome ledges and foule ground, in the mid-way there going throug it is 5 and 6 fathom deep, but it is beſt to goe without, except for them that are well acquainted. The north-point of Knockfergus, lyeth diſtant from the Copland Iſles 3 or 4 leagues n. w. or ſomewhat northerly, for which a ſ. e. courſe from the north-point towards the foreſaid Iſlands, that goeth farre enoug without them.

Bay of Knockfergus. The bay of Knockfergus is a great broad ſound; about 3 leagues inwards in the Bay weſt from Copland Iſles, is the road before Knockfergus, there is good anchor ground in 3 fathom and a halfe. Somewhat more further out towards the north-point alſo on the north-ſide of the bay ſtandeth a Caſtle, called Mouſehils Caſtle, by it is a ſandy bay, where is good anchorage, as well for great ſhips as ſmall, for the north and the n. w. winds, but a ſ. w. winde maketh a bad road in theſe places.

Cow Iſland. A little to the northwards of the north-point of the bay of Knockfergus, lyeth a little Iſland called Kow, from thence lyeth the Coaſt of Ireland forth n. n. w. about 9 or 10 leagues unto the Iſlands of Raghleens. Betwixt them both the nine Maydes one great league without the land, and two great leagues to the northwards of the Bay of Knockfergus, they are great rocks, that lye but little above water, or low rocky little Iſlands, and a multitude of rocks under water about them, that lye of ſo far to n. n. e. that men cannot come neare them within 5 or 6 Engliſh miles. There goe from Creekes throug the foule grounds, where men (for need) migt ſaile throug, but it is no wiſdome to go about it, when there is no need, and that men can do better. Noth very long ſince, there come a man (by nigt unaquainted) there in, and runne throug onely upon the ſigt of the breaches of the water, and got throug without any hurt, but not without great feare and danger. He that commeth of from the faire Forland, muſt (at leaſt) go ſ. e. and by eaſt, for to runne alongſt cleare of theſe foule grounds. From the weſt-ſide alſo lyeth of a litle taile of a ledge of rockes towards the land. Further, it is there cleane, that men may ſaile throug there within, but men muſt not come nearer the Maydes, then about halfe channell betwixt them and the maine, but the maine land ſo neare as they will, which is both cleane and cleare, with many Bayes, where men may every where anchor, yet here and there lye ſome roks, but they are all above water: There is nothing that can hurt you, but men may eaſily ſee it.

The Maids.

Oldfliet A great league to the northwards of the north-point of the Bay of Knockfergus, and a halfe league ſ. ſ. w. from the Mayds, lyeth a haven called Oldflieth. For to know it when men come from the northwards, they ſhall ſee two flatt little Towers, the one ſomewhat higher then the other like as if men ſaw a ſhip with maine ſaile and foreſaile, without toppe or toppe ſailes: theſe ſtand upon the north-ſide of the Bay.

Iſland Knee. At the ſouth-point lyeth a ſmall round little Iſland or rok called the Knee, a ſpeciall marke for to know this Bay; men run in there amidſt the channell. But when you come from the ſouthwards, and get ſigt of the little Iſland Knee, then run in cloſe about it.

From Old-fliet to the northwards unto faire Forland, the coaſt is very cleane, that you may ſaile cloſe alongſt by it, boldly without any feare, except you runne farre of from land, without the foreſaid Maides towards the Scottiſh Coaſt.

Faire Forlant Faire Hid, of faire Forland is the outermoſt northeaſt point of the maine land of Ireland, and lyeth a little to the ſouthwards of the Iſland Rachleens, ſo that this point and the eaſt-point of Racheleens lye neare about ſouth & north one from the other.

At Rachleens, or faire Forland the n. e. point of Ireland, come Scotland and Ireland neareſt one to the other. The Rachleens is an Iſland that men may ſaile round about, either to the northwards or to the ſouthwards, as they will according as it happeneth beſt convenient with winde and tyde. At the ſ. w. ſide is a faire bay, where is good lying almoſt for all windes. When men come from weſt it ſemeth to the ſouthwards of the Rachleens to be cloſe without any opening, becauſe the eaſtermoſt point of Irelands faire Forland, lyeth ſomewhat further out, behinde the Rachleens, but when they come nearer betwixt them, ſheweth it ſelfe open by little and little. On both-ſides are the ſhoares flat and cleane, ſo that men may anchor there where you wil, either by the coaſt of the maine land of Ireland, in 8 or 9 fathom, or in the bay under the Iſland in cleane ſandy ground. Over againſt the Rachleens, cloſe by the maine land, lyeth another little hig Iſland, called the Lams or Sheeps Iſland, to the ſouthwardes of it betwixt it and the main, men may not ſaile thereabout it, but betwixt it and the Iſland Rachleen it is broad enoug. Lamb Iſland

From the Rachleens unto the Skires Portruſh, the courſe is w. ſ. w. diſtant 7 leagues. About two leagues to the eaſtwards of it, the maine land, lyeth Por to Belletrie, a bad roade for great ſhips, the ground is there fowle & ſharpe.

Skires Porto Chickens. Betwixt Porto Belletrie & Skires Portruſh, neereſt unto Skires Portruſh, lye the Chickens, theſe are ſuncken rockes, which may be ſailed about on both-ſides, for to come to anchor under Skires Portruſh.

The Skires Portruſh is a rocky Iſland, it hath on the ſout-ſide a faire bay, where you may lye in 6 and 7 fathom, cleane and ſandy ground land-lockt for all winds, except for the e. n. e. winde, which bloweth alongſt the ſhoare there open in. For to come under this Iſland from the eaſt, you muſt goe cloſe alongſt by the ſhoare of the maine land, for to ſhun there foreſaid ſuncken rockes the Chickens. It is there all over cleane and cleare: or els if you were minded to goe without, or to the ſouthward of the Chickens, for to come under the Iſland, you muſt ſhun the eaſt-point of the Iſland, becauſe of a ſuncken rocke that lyeth a little of from the eaſt-point of the Iſland. At the northweſt-ſide of this bay is alſo a ſmall narrow channell, where you may ſaile throug.

Bant haven A little to the weſtwards of Skires Portruſh lyeth the Bant-haven, there alongſt you may ſaile up unto the new Towne Colran, it is a bad channell to come in, as well by reaſon of the ſtrong freſhoale that commeth out, as alſo becauſe it is very ſhoar: with ſhipps that draw 8 foote water, you muſt have at leas tree quarters of the flood before you can goe in.

Lough foyle Three leagues n. w. & by weſt from Branthaven, or weſt & by nord from Skires Portruſh, lyeth the haven of Lough foile, before it lyeth a great plate of ſand called the Touns, which lyeth from the weſt-point of the haven a great wayes to the northwardes of from the ſhoare, when the winde is out of the Sea, it braketh very much upon it, with ſmall ſhipe that draw little water, men may ſaile into Lough foile-haven at hig water to the ſouthwardes of the Touns, betwixt the Touns and the ſouther-point, called Magillions point; but is there very uneven, and at full Sea there commeth no more then 8 foote water, but alongſt to the weſtwards of the Touns, it is very deepe, men may ſound about the Touns on the off-ſide in 4 fathom.

For to finde the Channell that lyeth into the weſtwardes of the Touns, (comming from the eaſt, or alongſt by the Touns) you muſt looke out for a little ſandy Bay, that lyeth on the weſt-ſide, even within the nort-point of the river under the high land; bring it ſo, that you may ſee it open of the foreſaid north-point, and ſaile in there upon, untill you come by the land, and then runne alongſt by it ſouthweſt untill you come right againſt Green-caſtle. If you come from the weſt or the north, you may boldly without feare runne alonghſt the ſhoare, and about the point upon your lead, without comming neere the towne, you may ſee any thing that might doe you hurt, comming

by

by Green-caſtle, there may you anchor, ſo that you may ſee With-caſtle without the point of Green-caſtle, there you may lye within the towns, ſheltred for winds out of the ſea.

Road in Loughfoyle.

For to ſaile up from Green-caſtle, you muſt run up alongſt by the weſt ſhoare by your lead, & ſhun the little ſands that lye here and there along that ſide, until you come paſt with-caſtle, rigt againſt the three trees, there is the ordinary road.

Betwixt Green-caſtle & With-caſtle neereſt unto Green-caſtle goeth a Creke or Slence throug the grounds, unto the caſterne ſhoare, which is deeper or deeper then the rigt fareway unto With-caſtle. When men come off from Green-caſtle, they muſt take good heed not to goe farre off from the weſterne ſhoare, leſt they fall into that Creke.

How men ſhal ſaile from the foreſaid roade forth up unto the Towne Derry, they may perceive or marke by the card.

Iſlands Eneſter hull.

From Loug-ſoile-haven unto the Iſlands Eneſterhull (by ſome called Monſter-hul) the courſe is n. w. 4 or 5 leagues, theſe are ſmall black Iſlands or rockes, not very hig above water, and lye a little of the northermoſt-point of Ireland, called Eniſtom, a hig playne land, and very good to knowe for him that that once ſeen it. Betwixt the Iſlands and the point men may ſaile throug, but not without great danger for them that are not very well acquainted with it, becauſe of much fowle ground and ſhoals that lye betwixt them both. Under the foreſaid point Eniſton, on te weſtſide, men may anchor for eaſterly windes, or els to ſtoppe the tyde.

Loug-Swilly.

From the Iſlands Eneſterhull unto Loug-Swilly, of ſome called Lokſillie, the courſe is ſ.w. 5 leagues, that is a faire haven. For to ſaile in there: men muſt ſhunne the weſt-ſide & go in alongſt by the eaſterne ſhoare. The land about Loug-Swilly is the higeſt land of te whole north-coaſt of Ireland, & thereby it is alſo very good to know, for thoſe that (comming out of the north) do fal with the lands thereabouts.

Foure or 5 leagues w. ſ. w. or ſomewhat weſterly lyeth a large broad-haven, called Sheeps-haven, but it is at ſome places foule ground, within it men may lye land-lockt for all winds. The weſt-point lyeth out, called Hornehead, or Cape de Horne, upon it is a hill with two Hommockes in faſhion like two hornes and there after the point is named.

Horne head. Cape de Horne.

At the weſt-ſide of this point, men may ryde and anchor within the Rockes for eaſterly windes. Betwixt Loug-Swilly and Sheeps-haven lyeth alſo a Bay, where men may anchor, but the ground is not very cleare, and right againſt it in the offing, halfe a league from the land, lyeth a ledge of Rockes, which at high water are under, and at low water lye above water, may (for need) run through betwixt it and the land, but without it is beſt and ſureſt.

The Coaſt of Scotland.

Lougraen.

THe Haven or Sound of Lougraen or Loockreen in Scotland by the point of Galloway, lyeth diſtant from Faire Forland the northeaſt-point of Ireland, e. ſ. e. about 11 leagues, but the point called Cantir, lyeth diſtant from Loockreen northweſt and ſoutheaſt 9 leagues, there betwixt them both goeth up a great broad ſound northeaſt in, called Dunbritian Firth, throug which men ſayle up unto Glaskow in Scotland.

Dunbritian Firth.

The Sound of Loockreen you may ſayl in, und a good wayes you may turn in to and againe for to anchor there without for weſterly winde, if you doe come no neerer the Gores on either ſide then in 4 fathom, you can take no hurt: You may anchor ſomewhat in, by the ſecond high point on the eaſt ſhoare in 10 or 12 fathom.

About 7 leagues to the northwards of the point of Galloway in the fore ſaid great ſound, lyeth a high ſharpe Iſland, cleane round about of faſhion al moſt like unto a pook of hay called Ailza or Elze, there you may boldly ſayle round about, it is there round about it, and cloſe by it 18 fathom deep.

Elze Iland.

From Elzee northwards 6 leagues lyeth alſo another little Iſlands, cloſe by the eaſt-ſide of the great Iſland Arren, called Lambaſh, or Lamb-Iſle, cleane alſo round about, there you may ſayle round it, and anchor under it for all winds in 10, 12 or 13 fathom, to witt, within it, betwixt the Iſland and the great Iſland of Arren.

Lamb-Ille.

North and by eaſt and north northeaſt 2 great leagues from Lamb-Iſle, lyeth an Iſland by the point of the mayne land called Commer-Iſle; on the e. ſide of it betwixt the Iſland and the maine land, you may ſaile through into a faire bay, where men are landlokt for all winds, and from thence you may ſayle forth unto Dunbrittaine, or into the river Glaskow. The foreſayd Iſland Commer-Iſle lyeth from the Iſland Elzee, about n. and by eaſt. For knowledge of this Iſland, when men come of from Elzee or from the ſouthwardes this Iſland, men ſhall ſee a great caſtle on the eaſt ſide of the mayne about a great league to the ſouthwards of Commer-Iſle, & alſo a little caſtle, a good wayes to the northwardes, cloſe upon the water-ſide, that ſtandeth rigt to the ſouthwardes of the Iſland Commers-Iſle, or the ſound that lyeth there unto the eaſtwards of it, upon the ſame Iſland ſtandeth alſo a little caſtle cloſe to the water ſide. Run in betwixt the Iſland and the maine land, about n. n. e. in & leave the Iſland a great cables length on the larboard ſide, and the main land on the ſtarboard ſide you muſt ſhun more, becauſe of a great ledge that lyeth of from it towardes the Iſland, and ſomewhat more northerly, having gotten cleare of the end of this ledge run then right towards the main land into the bay, or ſound, and anchor there in 10 fathom, right againſt a ſtone houſe with an ore hard thereby, it ſhall be then a ſtearne your ſhip about 7 fathom deepe, and there more your ſhip well.

Commer Iſle Bay of Commer Iſle

For to ſayle out of the Sound of Commer-Iſle, towardes Glaskow, goe firſt n. w. and by n. unto by the point of the Iſland, that is, to the weſtwards of you, and then north, alongſt by it, then by little and little more eaſterly, at length northeaſt, runne ſo all alonghſt by the eaſterland, without leavingh of it, you ſhall not ſayle to come to the ſound of Glaskow. Comming by the point runne cloſe about by it firſt e. northeaſt, eaſt, and eaſt & by ſouth, at leaſt eaſt ſoutheaſt, all alongſt by the ſoutherne ſhoare, you ſhall then ſee a caſtle ſomewhat a head upon the ſouthertand, cloſe upon the water ſide, with two tuffes of trees upon the hig land rigt e. ſ. e. from the caſtle; keepe that foreſayd caſtle between the tuffes of trees, and ſayle in there upon, ſo ſhall you run rigt, alongſt the deepeſt of the Creeke, there is at hig water 5 fathom, at low water 3 fathom. From the north-ſhoare lyeth of a great ſhoale, which lyeth over the Sound more then two third parts from the norther-ſhoare; towards the ſouth-ſhoare it falleth dry at the loweſt water, therefore men muſt the norther-ſhoare, and run alongſt by the ſouther-ſhoare. There ſtandeth a white caſtle upon the ſouth-ſhoare, right againſt that begin the foreſayd ſands. In the Creeck it is ſoft ground, but towards the ſand-ground is hard, therefore when you feele by your lead that it is ſomewhat hard, that is a token that you come to neere the ſhoals, ſayle then ſo forth upwards to Dunbrittaine, there lyeth a little Iſland on the ſouth-ſhoare, which is at low water faſt to the Iſland when you ſhall be paſt it about 2 cables length then anchor there in 5 fathom at high water.

To ſaile from Commer Iſle to Glaskow.

A ſouth and by weſt Moone maketh there the higheſt water.

Of the Tydes and Courſes of the Streames.

At Dublin a ſoutheaſt and northweſt Moon.

The Flood commeth here from the ſouthwardes, and alſo from the northwardes, about the north part of Ireland, and meete one another about right againſt Carlingford, where they ſtoppone the other. The ebbe contrarie wiſe falleth (to the northwards of Carlingford) to the northwards, and (to the ſouthwards of Carlingford) to the ſouth wardes.

On the coaſt of Ireland from the South-Rock and North-Rock unto the Copland Iſles, a ſ. ſ. e. and n. n. w. Moone maketh full Sea. But to the northwardes of it a ſ. e. Moone.

On the Iſland of the Ragleens and Skires Portruſh an e. ſ. e. and w. n. w. Moone.

The Flood commeth there out of the weſt, and falleth through betwixt Ireland and Scotland: from the C. Cantir ſo the Mull of Galloway, ſ. ſ. e. unto the Iſland Man, there Floods out of the ſouth and north doe meet one to the other. The Ebbe contrarie wiſe falleth alongſt the coaſt n. n. w. betwixt Ireland and Scotland to the weſtwards unto the Ocean Sea.

At Engliſtoun in the Sound of Glaskow, a ſ. w. Moone maketh full Sea.

In the haven or Loug-ſoile an e. and by ſ. & w. & by n. Moone maketh full Sea. The Flood commeth there out of the w. and n. w.

At the Iſlands Eneſterhull, and in Sheepe-haven an eaſt and weſt Moone maketh full Sea. The Flood commeth there out of the weſt.

Courſes and Diſtances.

From the Sound of Dalke to the point Houth n. n. e.	2 leag. & a halfe
That courſe runneth without the point Houth, Irelands-eye, Lambey, and Rock a Bill.	
From Lambey to Drodag n. w. and by n.	6 leagues
From Lambey to Carlingford n. and by w.	11 leagues
From Carlingford to S. Johns point n. e.	7 leagues
From S. Johns point to Strangford n. e. and by n.	4 leagues
From Lambey to the South-rocke n. n. e.	22 leagues
From the North-rock & Sout-rok unto the Copland Iſles n. n. w.	6 leag.
From the Copland-Iſles to the North-point of Knockfergus, northweſt, ſomewhat northerly	3 or 4 leagues
One league to the northwards lyeth the haven off Oldefliet.	
From Oldeflied to the Ragleens within the Maydes, throug n. n. w.	7 leag.
From the Ragleens to Skires Portruſh w. ſ. w.	6 or 7 leagues
From Lougfoyle to the Iſlands Eneſterhull, n. w.	4 or 5 leagues
From Eneſterhull to Loug-Swilly, ſ. w.	5 leagues
From Loug-Swilly to Sheepe-haven w. ſ. w. ſomewath weſterly	4 or 5 leag.

Heights.

The Iſlands of Eneſterhull at the Northermoſt-point of Ireland lyeth in 55 degrees and 10 or 12 minutes.

How theſe Lands doe ſhew them ſelves at Sea.



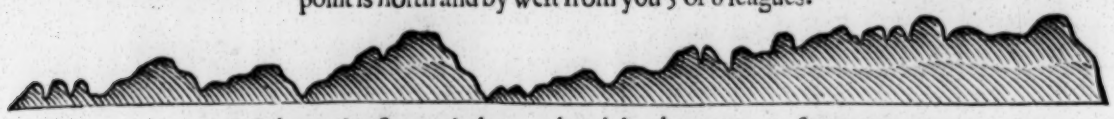
The Iſland Lambey ſheweth it ſelfe thus, when it is from you northweſt and by north one league off.



Thus ſheweth the land a little to the ſoudwards of Carling ford, when this hig point is n. w. from you about 5 leagues. He that will goe into Carlingford, muſt goe in cloſe by the ſhoare.



The land to the northwards of Carlingford ſheweth it ſelfe thus, when the northermoſt point is north and by weſt from you 5 or 6 leagues.



S. Johns point ſheweth thus, when it is 4 leagues n. w. from you.



Thus ſheweth the point of Scotland over againſt the Knockfergus, called the mul of Galloway, when men ſaile alongſt by it one league without the land, & that the northermoſt & the low point is n. e. from you, and the ſouthermoſt ſ. e. from you. Under the north-point is on both ſides good anchoring in 10 or 12 fathom, for ſoutherly and eaſterly windes.



The Iſland Elzee in the great bay of Dunbrittain ſheweth it ſelfe thus.



The Iſland Lamblaſh, or Lamb Iſle on the eaſt-ſide of the Iſland Arren ſheweth it ſelf thus, being 2 leagnes of from it.



The Iſland Commer Iſle lying before the ſound of Dunbrittaine, or Glaskow ſheweth it ſelfe thus.



Thus ſheweth C. Cantyr, when it is from you n. w. and by weſt about 7 or 8 leagues.



Iſle Man ſheweth thus, when you are 4 leagues ſ. e. from it.

The eigth Demonſtration,

Where in are ſheweth

The Nordweſt-coaſts of Ireland, from Hoornhead to Slynehead.

WEſt northweſt about two leagues from Cape de Horne or Hornhead, lyeth the Iſland Tore, to the ſouthwards of it lye three Iſlands, called the Iſlands Balneſſe, men may ſaile troug to the ſouthwards of Tore Iſland, to wit, betwixt Iſle Tore, an the Iſland of Balneſſe, and alſo within the Rocks.

Tore Iſle. Baleneſſe.

From the Iſland Tore the Iſles of Aran, the courſe is ſ. w. 6 or 7 leagues, betwixt them both, not far from Iſland Aran, lye ſome hig rockes, called the Staggs of Aran. Along all that coaſt betwixt Horne-head and the Iſlands of Aran, is good anchor ground all over.

Aran. Staggs of Aran.

For to come to ankor under the Iſlands of Aran, comming out of the north, runne alongſt by that great Iſland, leaving it on the ſtarboard-ſide, until you be within it. Goe then towards the ſ. w. & anchor on the ſ. e. ſide, there is the roade. Men may alſo anchor in the Iſlands, over againſt it towards the maine, in divers places, & lye landlockt for all windes.

Upon the n. w. point of Ireland, a good wayes landwards in, lyeth a hig hill, or faſhion al moſt like a Sugarloafe, which is ſeen in cleare weather before any other land, at leaſt 9 leagues at Sea. When that hill lyeth eaſt and by ſouth from you, then ſaile in rigt with it, you ſhall not miſſe to fall rigt with the great Iſland Aran.

From the Iſland Arand unto the point Telling-head, called by the Iriſh cape de Telling, or Tellin; the courſe is ſ. ſ. w. 8 or 9 leagues. Three of foure leagues to the nordwards of cape de Telling lyet an Iſland, called Raigleene borne.

Telling head. Cape de Telling.

At the Cape Telling lyet a litle Iſland, half a league from land, men may ſaile throug betwixt the Iſland and the Cape, boldly without any danger.

To the ſouthward of C. de Telling, to wit, betwixt the Cape & Stagges of Broadhaven, lyeth the land with a great bay, where in lye many good Havens, as Tellinghaven, Kilbeg, Dungal, Ballaſhaven, Slego, Endrigo & Moye.

From the Cape of Telling unto Kilbeg lyeth the coaſt e. ſ. e. about 4 leagues: betwixt both, about one league and a halfe from the Cape, lyeth Telling-haven, a round bay with good ſandy ground, there may about 30 ſhips lye, weſt, and ſ. w. windes doe blow there open in, for all other windes men are landlockt. Kilbeg.

Kilbeg, or Kalebeg is alſo a fayre round bay, but it is very narrow at the comming in of it. When men are a litle from the ſhoare; it ſeemeth to be all cloſe without any opening. About halfe a league to the weſtwards of this bay, a quarter of a league from the land, lyeth a little Iſland, which is very low and plaine land at both ends going plaine downe, that is a good mark to know this foreſaid bay, men may alſo ſaile throug betwixt the Iſland & the maine, if they will. When you come out of the weſt and are paſſed that Iſland, then go neere the ſhoare which is clean and cleare, and go freely cloſe a board of it, until you ſhal ſee this bay open, and then ſaile boldly in, without any feare, betwixt the two ſhoares there is nothing (neither in the going in, neither within in the bay) that can hurt you, if you doe not ſaile upon the ſhoare. When you ſhall be come in anchor where you pleaſe in 5, 6, 7 or 8 fathom, ſo ſhoale or ſteepe or deepe as you wil, on the nord-ſide within the bay ſtands a litle caſtle.

About a little league to the eaſtwards lyeth another Bay within ſome rocks, called Mackſwyns bay; but it is not to goe, except men be very wel acquainted, they muſt go betwixt the rocks in until they be gotten in, there they may ſave a ſhip without cable or anchor. Mackſwyns-bay.

A great league to the ſouthwards of Kilbeg, lyeth a long lying out point, called S. Johns point rigt weſt from that point, a quarter, or a little halfe league, lyeth a great Rock under water, where upon the Sea breaketh with great noyſe. Betwixt that rok, and the point of S. Johns point, men may ſaile boldly throug, it is there cleane and cleare. S. Johns point.

About

Kilbeg.

Mack-
Twyns-
bay.

S. John
point.

De Noordwest zyde
van
YERLANDT
Beginnende van Capo de Hoorn; tot aen Schynes. of-
Slynehead.
t Amsterdam.
By Iacob Theuniſz op 't water inde Loots-man.

Dungal
Bulſtoun
Dungalhaven
Balashaven
Bondroes
Mickhaven
Erverhaye
S Lens point
Castel Monsuyn
Kilbeg
Scheeps haven
Hoornh.
C. Hoorn
Balenglasse
Eylandt
I. Torre
Klatv
Castel
Locrus
Tellinhaven
Tellinghed
C. Tellin
I. Raglenehorne
Stucce van Aran
I. Aran

Duytsche mylen 15 in een graet

Spaensche mylen 17½ in een graet

Eng. en Fra. mylen 20 in een graet

CONNAVGH

Bores

Bresel

Dom Patrix Schierwoo

Schynes Shynehead ofte

Moye ofte Muyn

Rafrain

Ooster Eylandt

Brod haven

Stukes van Brod haven

Enesk.te

Blacrock ofte de Moor

Ackelind

Clerk

Bocke

Horsh

Shrnhoofe

Dungal
haven.

Moy.

Staggs
of
Broad-
haven.

Black-
rock.

Ackle-
head.

Dungal haven. About 2 great leagues to the eastwardes of that foresayd point S. Johns point, lyeth the Haven of Dungall, into the southwards. For to sayle in there, you must first shun the easter-shoare, which it very foule with dry plates and Rocks. When you are come right against a little castle that standeth on the north-side, right against it lyeth of a little from the shoare, that you must avoyd also. And when you are come about the point of that riffe, you must goe over again to the north-side, for to south-side is there flat and shoale. Betwixt Saint Johns point and Dungall-haven alongst the coast is all over good anchor ground.

Moy. The haven of Moy hath at the comming in a broad bay, in it lye some rockes. For to saile in there, you must leave them all on the west-side, that is, on the starboard side, and run towards a little sandy Island, that hat at the n. end a little riffe, you must goe into the westwards of it, & leave that Island on the larboard side. Even within that foresayd Island lyeth another little round green Island, that must be left on the starboard side, so soon as you shal be right against it, you must let fal your anchor, for a little further it is shoale and hard sandy ground, the greatest anchor must be brought towards that foresayd long small Island, & the small anchor towards the little grene Island, it fallet there at low water al wayes dry. If you wil goe from thence before the town Moy, you must ligt your ship to 8 foot. For to come throug betwixt the long small Island, & the s. grounds, there is at hig water with an ordinary tyde no more then 9 foot water; being come over the nek, you shal come into a poole before the town Moy, there you may tyde a flat at a low water. In the road against the Island it is 15 a 16 foot deep.

Staggs of Broad-haven. The Staggs of Broadhaven are roks that lye to the n. wards a league or a league & a haufe a Seaboard of the point, to the n. wards of Broadhaven.

Broad-haven lyeth in south and by west, in the sound lye 3 or 4 Rocks, these must be left on the larboard side, and run in there alongst to the westwards, untill you come within the haven.

Black-rock. A great league to the westwards of Broad-haven lyeth an out point s. w. from the Staggs. From thence lyeth the coast alongst to Black-rock s. s. w. Black-rock is a great high Black-rock with more other Rocks by it, and lyeth from the foresayd point s. s. w. distant about 6 leagues, and about a league n. w. from the out point Acklehead.

Acklehead. Acklehad is a very hig point, and sheweth it selfe a farre of like a Island with a great Saddle, thereby it is good to be knowne. Within this point lye also two exceeding hig hils which together with the point men shall se first at Sea before any other part of the land, so that the point doth shew it selfe first like three Islands. Men may sayle throug betwixt Acklehead & Black-rock; comming from the southwardes men doe leave Acklehead on starboard, & Black-rock (with the Rocks thereby a Seaboard) on larboard, and the course lyeth through betwixt them both n. n. e. and north and by east unto the point of Broad-haven, it is there large and wyde.

To the northwards and to the eastwards of Acklehead, lye divers havens, where it is good ryding, a little to the northwards of Acklehead, you may run into the westwards, betwixt the low land to the northwards on the larboard side, and the high land of Acklehead on the starboard side a great wayes in, and anchor in 7 & 8 fathom, land-lockt for all windes and from thence may come out againe to the northwards, or else may come out into the sea again to the s. wards round about the land of Acklehead.

Slynshead. From Acklehead to Slynehead (by the Sea faringh men called Twelve-pence: because the land doth shew it selfe in 12 round Hommocks) the course is south, wat easterly 11 leagues, betwixt them both lye 3 Ilands before a great bay, the northermost or next to Acklehead is called Cleere, this hath a high hiil on the north-end that is very steepe, and at the south-end it is flat goingh downe. The second or middlemost is called Boche, within it is a road for those that are bound to the southwards, where men may anchor in 4 fathom. The southermost is called the Horse.

Twelve Pence. Betwixt Acklehead & Twelve-pence lyeth within in the land, a very hig hill like a Sugerlose, called S. Patricks-hill, or by some Don Patrix, that may be seen far at Sea and shall be seene long, altering it selfe by the cliffe land, as men sayle alongh the coast to the northwards, or to the southwards.

Patriks hill. From Slyneshead, or Twelve-pence unto the sound of S. Gregories, before the bay of Galloway, the course is s. e. 9 leagues.

Of the Tydes and Courses of the Streames.

In all these foresayd Havens and roads an e. n. e. and w. s. w. Moone maketh full Sea. In the offing a Seaboard a s. w. and n. e. Moone.

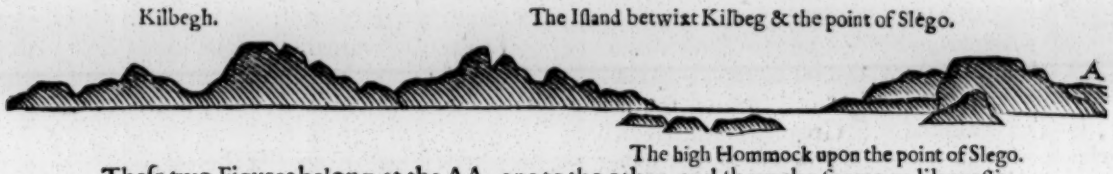
Courses and Distances.

From C. de Horne, or Hornhead, to the Iland Tore w. n. w.	2 leagues
From the Iland Tore to the Iles of Aran s. w.	8 leagues
From the Ilands of Aran unto Tellinghead, s. s. w.	8 or 9 leagues
From C. de Tellin or Tellinghead to Kilbeg, e. s. e.	4 leagues
From C. de Tellin to the Stagges of Broad-haven s. w.	11 leagues
From the point of Broad-haven to Black-rock s. s. w.	6 leagues
From Black-rock to Acklehead s. e.	1 league
From Acklehead to Slynshead s. e. and by e.	10 leagues
From Black-rock to Rokoll, n. and by w.	60 leagues.

Heights.

The River of Galloway lyeth in 52 degrees 54 min.

How these Lands doe shew themselves at Sea.



These two Figures belong at the AA. one to the other, and shew the forme or likenesse of the land betwixt Kilbeg and Slego.



Thus sheweth the Land to the eastwards of the Staggs of Broad-haven towards Moye and Slego.



The land to the northwards of Black-rock, as farre as the Stagges, and then to the southwards alongst past S. Patricks-hill, sheweth, as in these two Figures is Described, when men are thwart of Black-rock.



Thus sheweth the land betwixt Blackrock & Acklehead, when it is east from you, when you come more to the northwards, these high hils doe alter also wyder one out of the other.



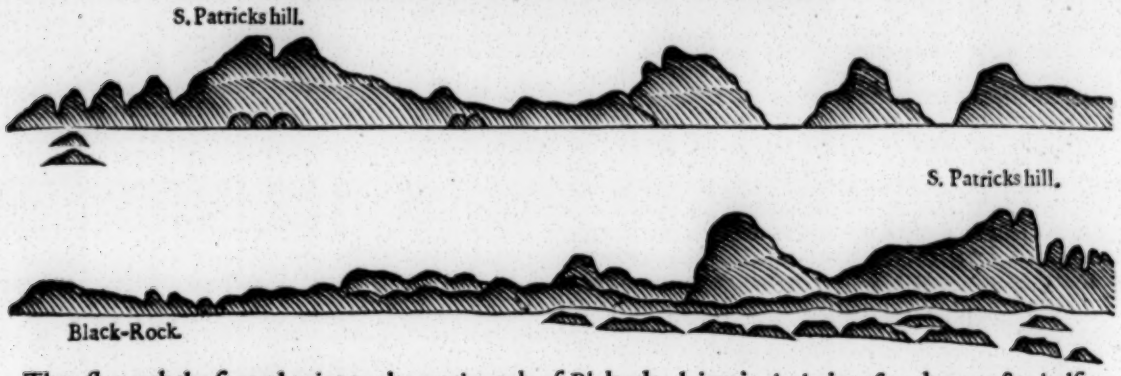
The point of Black-rock sheweth thus, when you are to the northwards of it



Thus sheweth the point of Black-rock, when men are to the southwards of it, then they see a sharpe Rocke over the point.



Thus ſheweth S. Patricks hill, when it is ſ. e. and by ſouth from you, being not farre from Land, at the north-ſide of it lye ſome little Iſlands and Rock.



Thus ſheweth the ſecond point to the northwards of Blakrok, lying in the heigt of 54 degrees & a halfe.

The ninth Demonſtration,

Where in is Contained

The Deſcription of the Weſt-Coaſt or poynt of Ireland, from Slynehead to Corck-Bay.

Iſlands of Aran. S. Gregories ſound.

FRom Slynehead until you come before the bay or great inlett of Galloway, the courſe is ſ. e. 9 leagues, where lye 3 great Iſlands, called the Iſlands of Aran, the ſouthermoſt is greatſt, the channel betwixt the northermoſt & the middlemoſt, is called the ſound of S. Gregory, which is on both ſides cleane without any foule ground, ſo that men may turne in to and againe from the one Iſland to the other, without feare of taking any hurt. The north-ſide of the middlemoſt Iſland is nothing elſe but faire ſteep Rocks: when you are come within the Iſlands, you muſt ſhun the middlemoſt, becauſe of a little riffe that lyeth of it.

Men may alſo ſaile to the northwards of the nortermoſt Iſland, into the great Bay of Galloway, likewiſe alſo to the ſouthwards of the ſouthermoſt, to witt, throug betwixt the ſouthermoſt Iſland, and the maine land, but that Iſland is foule at the ſouth-end of it, and therefore you muſt runne in alongſt cloſe by the ſouth ſhoare, or at leaſt leave two third parts of the channell towards the Iſlands, as well in ſailing in as ſailing out.

Black-head.

Somewhat within the Iſlands on the ſouth-ſide lyet a hig black-point, called Blackhead you muſt beare into it, and alongſt by it in, whether you come in at the ſouther channell, or throug S. Gregories ſound, or elſe in at the norther channell, for the north-ſide of the bay is foule and rocky. About two great leagues n. e. from Black-head, lyeth an Iſland, called Motton-ile, under it on the eaſt-ſide you muſt anchor in a poole, in 5 or 6 fathom.

You cannot ſaile further up to the northwards into the River with ſhippes, but onely with Boats. A n. e. and ſ. w. Moone maketh there full Sea, and it floweth there ſo ſtrong in the baye, that the rockes which at low water are above water, at high water you may ſaile over them; at low water of Spring-tydes, the grounds fall dry w. ſ. w. from Mot-

Motton Iſle.

ton-Iſle, a great leagues & a halfe of, moſt all rocky and foule ground.

When you ſaile from Blakhead towards Motton-Iſland, you muſt take heed of the north-ſide, and edge over moſt towards the ſouth-ſide. About halfe wayes betwixt them both, lyet a plate or ledge neareſt the north-ſide, you muſt goe in alongſt by it to the ſouthwards.

Lupis-head.

From the Bay of Gallowai to Lupiſhead at te nort-point of the Haven of Limbrick, the courſe is ſ. ſ. w. 11 or 12 leag. About halfe wayes betwixt then both, lyeth a little Iſland that is a foule round about with ledges of Rocks that lye of to Seawards a league and a halfe a Seaboard the Land.

To the ſouthwards of the point Lupiſhead goeth in the Haven of Limbrick. Foure leagues e. n. e. within the fore-ſaid point, lyeth an Iſland, called Seatrick, you muſt ſaile alongſt without it to the ſouthwards, and leave it on the larboard-ſide in ſailingh up. At the eaſt-ſide of that Iſland is good road. About halfe wayes betwixt that Iſland and Lupiſhead, lyeth a ſhoale, which you muſt ſhun, and ſaile alongſt to the ſouthwards of it. From the Iſland Seatrick unto Lumbrick, are more 12 or 13 leagues, firſt from thence to the Iſland Quoine 4 or 5 leagues, there are two little Iſlands, you muſt ſaile cloſe alongſt to the northwards of then: From thence e. n. e. unto a great rock, called the great Beefe, and then ſ. e. unto another great rock, called the little Beefe.

Har of Li brick. Seatri

The great & little Beef-rock.

When you are come before the towne in the Haven, you muſt take faſt on the Caſtle with 3 or 4 Cables. For there goeth a very ſtrong tide as well of Flood as of Ebbe. An e. n. e. Moone maketh there full Sea.

Smerri

From the Haven of Limbrick to the haven of Smerrick the courſe is ſ. w. 8 or 9 leagues, betwixt them both lyeth the coaſt with a great Bay, where in lye ſome litle Iſlands, called the Hoggs.

Sinbra donhi

A little to the eaſtwards of Smerrick lyeth Sinbrandon-hil, a very hig hill, which lyeth in hight very much above all other lands thereabouts, they that come out of the Sea from the weſtwards, ſhall ſee that hill firſt before any other Land, and there by eaſily know it: Men may ſee it at Sea in the offing, 12, 14 and ſometimes 16 leagues of, according as the weater is cleare.

Foure or 5 leagues w. ſ. w. from Smerrick, a little of from the land lye 4 or 5 Iſlands, being high round Hills and roks called the Blaskeys, with ſome other rocks and little Iſlands about them. The Sound betwixt them and the maine land, is called the Sound of Blaskeyes, lyet throug neareſt n. n. w. & ſ. ſ. e. Hee that is bound to the northwards may anchor at the ſouth-ſide before the ſound for weſterly and northerly winds, and not be inbayed upon any lee ſhoare: For if the winde ſhift eaſterly, he may either goe throug the ſound, or elſe goe about a ſeaboard the Blaskeys. If the wind ſhift weſterly or ſoutherly, he may run throug the Sound, & further his voyage. There runnet throug a very ſtrong tyde, as wel of the flood as of the Ebbe, which muſt be conſidered.

Blas keyes

Six

Galloway

Alstin Iſle

Blached

Port Nißadoy

Kromske

S. Carlis

Slyneheds al Slynhooft

Smalle Sand

Doenshoof

Diskamer

Carolsſee

Y E

Bartugras

Seatrix

Lewis kooſt

Lewis Hoogs al Beeren

Borratti

Clara

Lemryck

Dingle loch

C. Sibilla

Sond van Blaſques

Emis Moron

Emis Clon

Emis Shroe

Horſeſp.

Rocken

De west custen
van

YERLANDT.

Beginnende van Corckheg tot aen Slynhooft.
't Amsterdam.
By Iacob Theunisz. op't water inde
Lootsman.

R L A N D T.

Duytsche mylen 15 in een graet

Spaensche mylen 17½ in een graet

Eng. en Fra. mylen 20 in een graet

Corck
Kynsael
Oldhead
Glenmore
Rosse
Somrack
Castelhaven
Stokes
Baltimore
Sherke
Schelhaven
Limon
Long Island
C. de Clare
Inishtrahull
Langershaven
Ballyshannon
Donckery
Clip als een zeyl
Kil mare
Long Argyren
Dingle bay
Valencia I.
Skryss
Wems
C. Dorses
Kalf
Koe
Bul
Clein Schyllingh
Middel Schyllingh
Great Schyllingh
Barntrey
Blachd
Scarmey
Sondtsan Dorses
Inishtrahull
Fastnet
Mesanhead
Scharphead
drie Castelsen hd
Sandbay
Ballihead
Kay
Mother
Verveullen cast
Withays
Sandbay
Penaster
Priss
Killeo
Spart
Abby
Sallmon ley
Penar
Tuskar
Bierhaven
Dor Castel
Cabo head
Smerwick harb.
Tralee bay
Ballyshannon bay
Inishtrahull
Inishtrahull
Inishtrahull

Skellocks. Six leagues to the southwards of the Blaskeyes lye three great Rockes called the Skellocks, the eastermost about a league, and the westermost two great leagues a Seaboard the land, when you come from the southwards & see them first, they shew like sayles of ships. Betwixt the Skellockes & the Blaskeyes goeth in a great broad Bay deepe into the land, called Dinglebay, with divers havens in it.

Dingle bay. About a league and a half from the Sound of Blaskeyes lyeth a haven called Ventrie, a great league to the eastwardes of it another called Dingle, or Dingle Chouch, it lyeth n. & by w. in, at the west-point of it lyeth a rocke called the

The Crow. Crow, which is clean round about, so that men may sayle round about it on both sides, without taking any hurt, at high water with spring-tydes, it floweth even under water. This haven of Dingle and the Skellockes, lye northeast & by north, and southwest and by south distant 8 leagues.

Northeast from the Skellockes, s. e. from the Sound of Blaskeyes, & sand by e. from the Ventrie, lyeth a haven at

Begenny-haven. the east-end of the Island Valentia, called Begenny, which lyeth e. s. e. in, you must give the east-point of the Islands a birth of, because it is fowle, & lyeth a good wayes of: there lyeth also a suncken Rock on the Island side, which you must take heed of when you are come within the entry of the haven, you must goe east and by north unto the road, which is rigt against a red cliffe that lyeth on the south-side.

The Skellockes & the C. Dorsey lye n.w. & s.e. 6 leagues a sunder, betwixt them both goeth in also a great broad Sound, n.e. in, where in lye many Islands, havens and roads.

C. Dorsey. C. Dorsey is an Island within, which men sayle and ryde under. For to goe in there from the southwardes, you must give the east-side a birth, that is, the side of the mayne land which is foule, & run in alongst by the side of the Island, untill you be come within, and anchor there.

Bull Cow. Calfe Rockes. Without the C. Dorsey lye three great Rocks, the outermost or the westerlye is called the Bull, the middlemost is called the Cow, and the other the Calfe, they are clean round about, so that men may sayl there throug between them, without feare of any danger, there is nothing that can hurt but men may see it.

Mizanhead. About six leagues e. s. e. from C. Dorsey lyeth the point Mizanhead, betwixt them bot goeth in a great Bay or River deepe into the land (with divers havens & roades) called the Bantry.

Three Castles. A great league to the northwards of Mizanhead, lyeth a point, called the three Castlehead, upon it standeth three flat Towers, but you can hardly see them except they be neere the land, also a great league more to the northwar-

Sheeps head. des, lyeth a small point, called Sheepshead. Betwixt these two points goeth in a great broad Bay, called Dounams Bay, there is nothing to doe nor to fetch, but it is a fit place to save ships, and all over good anchor ground.

Beerhaven. From Sheepshead to Beerhaven, the course is north and by west or somewhat westerly about 2 great leagues, it goeth in between a Island on the east-side, and the main lands towards C. Dorsey on the west-side, it is about a great Musket shot broad, the foresayd Island on the east-side is called the Island of Beerhaven, and is about 2 leagues long. For to sayl in there you must keepe the mid way, in the entry of the haven it is clean, without any fowl ground: after you are come in, there standeth on the larboard-side a ruined castle, and a little further are two little Rivers, close one by the other, between these 2 little rivers stand some Fisherhouses. Men may sayle into the foresayd little Rivers, they are deepe enough, but commonly men doe anchor before them, or by that foresayd ruined castle, or els somewhat further in, it is all over good anchoringh, and cleane ground, except right against the foresayd little Rivers, lye some Rocks about the middle of the channell, which at high water are under, and at low water lye above water, these onely must be shun but men may goe on either side of them. Somewhat further in the Bay standeth another castle, called Oldcastle, from thence men may sayle alongst to the northwards of the Island Beerhaven, and come out to the eastwards into Bantry. The Sound on the north-side of the Island is large, broad, cleane, 13, 12 and 10 fathom deepe. The east-point of the Island is a sharpe point, and very fowle, there lyeth of a ledge of Rocks, where of some lye under water and some above water, at low water but the side of mayne is cleare and cleane. In this entry lye also two great Rockes high above water, but clean round about men may run through between these Rocks, or to the southwards, betwixt them and the foresayd ledge of Rockes or also to the northwards alongst betwixt them and the mayne land, as well in commingh in as in saylingh out, there is no danger more then men may see.

From Beerhaven to the north-point of the Island Whiddy, lyeth the Bantry e. n. e. and n. e. and by e. 6 or 7 leagues; over against Beer-haven in the middest in the fareway, it is deep 40, 36 and 30 fathom, within the Island, 15 and 16 fathom in towards the Island Whiddy, it is againe 20 and 25 fathom deep men may sayle round about the Island Whiddy, (which is about a league long) but to the northwards it is best.

The Whiddy. For to sayle in about to the northwards, or to the eastwardes, men may goe in close by the north or east-point, but a little within the point, lyeth a little ledge of Rockes, a little musket shot of from the shoare, which at high water lyes under, but a halfe ebbe beginneth to come above water, that onely is there to be shunned, beingh passed that, you may anchor all over. About that foresayd point lye two small Islands, by the greater men may sayle alonghst on both-sides of it, either within it or without it untill you come before a Gentlemans-house which is white, upon the Island Whiddy, and anchor there against it in 3, 4 or 5 fathom, so deep or so shallow as men will, according as men desire to ryde neere or far from the shoare, it is there all over clean ground.

For to sayle in to the southwards Whiddy. He that will sayle into the south-point of the Whiddy, had need be very well acquainted, it is to there to the southwardes betweene the Whiddy and the mayne land, at most places fowle and stony. From the west-side of the Whiddy, lye also some fowle ground and Rocks, somewhat of the Island to Seawards, some above, and some under water.

The Abbey. To the southwards of the Whiddy upon the mayne land standeth a Friery or Abbey, called by the Irish the Abbey, rigt against it, is the common road, and it is very good ground in 4, 5 or 6 fathom, accordingh as you shall ryde farre or neere to the shoare, to the northwards lyeth a little Island so low in the midde, that at a spring-tyde the Sea floweth over, and divideth it in two.

A little league to the eastwards of the Abbey lyeth a little Towne upon a little River called Balgobben, at high water men may goe up there with their boat, but at low water it falleth dry.

Longerf. A great league from the east-point of the Whiddy, west northwest lyeth a haven called Longerf, when you shall sayle from the foresayd point towardes it, you shall meete right in the fareway, about halfe wayes over a great Rocke, which men may sayle about on both-sides, but it is best on the off-side is cleane and cleare, but on the inner-side lyeth some fowle ground. He that will sayle through on the inner-side, had need to be very well acquainted. The foresayd haven of Longerf lyeth north northwest. Even within it in the entrance on the starboard side, lyeth some fowle ground, which at low water (at the Springh-tydes) may be seen drye, these must bestunned, or els it is there within all over good anchoringh and good ground, there is no more danger, but men may see it.

When a man is neer the Island Whiddy, about the middest of the Bay, he cannot see the land without the Island Beerhaven on the west-side of the Bay, because it falleth a way so alonghst to the westwardes.

Crookhaven. From Mizanhead unto cape Cleare, the course is east and by south distant 7 leagues. About 3 leagues within or to the eastwards of Mizanhead, northwest from cape Cleare, lyeth a haven called Croock haven. He that commeth from the east, and is bound in there, must runne alongst by cape Cleare, up about it to the northwards, so farre untill he may see through into Sea to the northwards of the Island of cape Cleare, as throug a hole, and set then his course west northwest keepingh that foresayd hole (to the northwardes of cape Cleare) open, then he shall fall right with Croockhaven, which lyeth in w. s. w. And there he may anchor before the little Town in 3 fathom, and 2 fathom and a halfe. It was wont here to fore to be deeper there, but it is spoiled most by casting of ballast, men may also anchor forther out then before the Towne, there it is deeper, and all over cleane ground.

Fastney Rock. School haven. Two little leagues west and by south from cape Cleare, lyeth a high steepe Rock alone in the Sea, called Fastney, which sheweth at first sight like unto a sayle, north 3 or 4 leagues, from this Rock lyeth a Haven, called Schoolhaven.

Isle Sherk. A little to the eastwardes of the Island of cape Cleare lyeth another Island, called Isle Sherk. To the eastwards of it, betwixt that Island and the mayne land goeth in a Haven called Baltemoore-Haven: It is somewhat narrow at the mouth of the Haven, but within the mouth the haven, it is large and broad, there may you anchor on both-sides where you will, and lye land-lockt for all windes. On the west-side within the Haven standeth a Friery, close before it you may anchor in 66 fathom; in the middest of the Haven, it is 5 and 6 fathom deepe. A little to the northwards of the foresayd Friery standeth a castle upon a point. In the mouth of the Haven lyeth a suncken Rock, neerest to the east-side, and within in the middest of the Haven lyeth a Rocke, which at high water lyeth under, and at low water lyeth above water, there is nothingh els that can hurt. A little to the eastwardes without the haven, lyeth another Rock six or seven shippes lengths from the shoare.

For to sayle throug within the Islands of cape Clear. To the northwards of the Island of the Isle Shercke, men may goe to the westwards through betwixt Isle Shercke, and the Island Spain, & come out againe into Sea by cape Cleare, but it is to bee done onely with small shipping, and yet not without danger. Betwixt Isle Shercke and Spain, is at halfe Flood not more then 12 or 13 foote water. At divers other places betwixt these Islands, it is Rocky and shoale, so that it is not good to goe through within, except men bee very well acquainted and yet at high water and spring-tydes.

Stages. A little league to the eastwards of Baltemoore lye the Stagges, an English mile from the shoare, they are five or six high steepe Rockes. When men come from the eastwards alonghst by the shoare, and get first sight of them, they are like unto some spirie Towers together men may sayle through betwixt them and the mayne land, it is there large and broad enough.

Castle haven. Northeast about 2 leagues from the foresayd Stagges, lyeth Castlehaven, without it on the east-side lyeth a little Island, you must leave it on the starboard side in sayling in, and another little flat Island on the larboard side, that lyeth close to the land, that at low water men may goe three foot over from it to the maine land. Within the haven standeth a little Chappell, when you will sayle in there, you must run in rigt with it, close alonghst by the foresayd little Island on the east-side: When you are come in, thwart of the Chappell, you shall see a Castle on the west-side, over against that Castle you may anchor in 12 fathom.

From

From Castle-haven unto the Oldhead, the coast lyeth moſt e. n. e. and w. ſ. w. but cape Cleire and the Oldhead lye n. e. & by east, and e. n. e. diſtant 14 leagues.

Kedonetedo. About halfe wayes betwixt Castle-haven and the Oldhead lyeth a hig poynt, called by the Iriſh, Kedonetedo, thereby it on the weſtſide is a good haven, called Clandate: For to ſayle in there, you muſt run in alongſt cloſe aboard by that foreſayd high land on the east-ſide; for to ſhun a rane of roks that lyeth on the weſt-ſide, & lyeth of ſomewhat towards the east ſide, when you are come in, you may anchor before a caſtle in 5 or 7 fat.

Clandate.

The Oldhead or cape de Velho, is a point that lyeth out farre without the other land, the outhermoſt ſouth-end of it is very hig & ſteepe, when you are come alongſt the ſhoare from the east or from the weſt, and ſee it firſt, it ſeemeth to bee an Iſland, upon the top of it ſtandeth a ruined caſtle with three Towers, where of the middlemoſt is the higheſt. On both ſides of this outlying poynt men may anchor ſoo deep or ſhoale as they will.

About 2 leagues north and by east from that poynt lyeth the haven of Kinſale, lying in north northeaſt, you may ſayle in there, keeping the middle of the channell, there is no danger, neyther without not in the harbours Mouth, but one ſuncken rock cloſe by the eaſt-poynt. When you come in from Oldhead, or from the ſouthwards, and you keep an old ruined caſtle (that ſtandeth within the haven on the eaſt-ſide) even without the innermoſt eaſt-poynt of the haven, then you ſhall not come neere that rocke to take any hurt of it. About a great halfe league to the eaſtwards or the havens mouth, lye two great black rockes, the one ſomewhat further from the ſhoare then the other. When you come from the eaſtwards, and you wille goe in cloſe about the eaſt-poynt, and you keepe the ſouthermoſt (that is the greateſt) rigt on the eaſt-poynt, then you ſhall goe throug betwixt the ſuncken rock & the poynt: But if you keepe the northermoſt (or the ſmalleſt) a little without the foreſayd point, ſo long untill you have brougt the foreſayd old ruined caſtle, without the innermoſt poynt, then you ſhall goe alongſt without it, and then in the midſt of the channel alongſt by the eaſterne ſhoare. A little paſt that foreſayd old ruined caſtle, ſtandeth a caſtle on the weſt-ſide upon a poynt, there lyeth of a ſhoale, which muſt be ſhunned, and therefore you muſt keepe cloſe alongſt by the eaſter ſhoare, untill you be gotten about the ſhoale of the caſtle and then weſtwardes up unto the Kay of Kinſale, there you may anchor in eigt or nine fathom, and lye land-lockt for all windes. The Towne Kinſale lyeth a little to the northwardes in a bay, where it is oaſie ſoft ground part where of falleth dry at low water.

Kinſale.

Corck. Foure leagues to the eaſt-wardes of Kinſale, lyeth the haven Corck, betwixt both about a league to the weſtwardes of Corck, you ſhall ſee (ſayling alongſt the coaſt) two ſteepe Hommocks like Towers in the land, not farre one from the other: Theſe are notable marks for to know the coaſt. When you are thwart of the eaſtermoſt, you may ſee the Havens-mouth of Corck, that lyeth in north northweſt; within it is wyde and broad, and goeth up into the land with a broad River. On the eaſt-ſide, ſomewhat within is a poynt, where lyeth of a ledge of Rocks, which muſt be ſhunned. There over againſt on the weſt-ſide, ſomewhat farre in, lyeth another poynt with & old ruined Caſtle, there alſo lyeth of a ſhoale, to the northwardes of it, men goe about to Corck. Within that Caſtle lyeth a little tyde haven in a ſandy Bay. Within the haven lyeth an Iſland, where men doe ſayle round about, & at the ſouth-ſide there of may ryde. It is in this haven of Corck at lowe water, 7, 8 or 10 fathom deepe.

A little without the eaſt-poynt ſtandeth an old ruined Caſtle upon the low land, & ſomewhat further eaſtward, a ſquare Tower in a Valley. A league to the eaſtwards of the Havens-mouth ſtandeth a Tower upon a hig poynt, cloſe to the water-ſide, with 10 or 12 thatcht houſes by it More over, a league further eaſt, by a ſmooth poynt, lyeth a long Rock growen about with greene upon the eaſt-ſide of that point ſtandeth a flat Tower, further, it is to the eaſtwards all low land, unto the poynt of Jochull.

Of the Tydes and Courſes of the Streames.

In all the foreſayd Havens maketh high water an e. n. e. & w. ſ. w. Moone or a poynt later, according as they lye deep within the land.

But a Seaboard the coaſt in the offing, a n. e. & ſ. w. Moone.

At the Mizanhead, cape Cleare, & the coaſt to the eaſtwards, a w. ſ. w. & e. n. e. Moon maketh high water, within the Havens & indraughts a poynt later, to witt, east and by north, & weſt and by ſouth. But in the channell a Seaboard the land, a n. e. and ſ. w. Moone.

Without cape Cleare by the land, the Flood falleth away eaſt & the Ebbe weſt but to the eaſtwards of cape Cleare, e. n. e. & w. ſ. w.

On the ſouth-coaſt of Ireland & e. n. e. & w. ſ. w. Moone maketh hig water, within the Havens a poynt later, to witt, & east and by n. & w. & by ſouth Moone: but in the offing a Seaboard a ſ. w. and n e. Moone.

Betwixt C. Cleare, along the coaſt before Waterford into the poynt of Carnaroort, the Flood falleth alongſt the coaſt e. n. e. & the Ebbe w. ſ. w.

Of the Depths.

Betwixt cape Cleare and the Dorſeyes, men may ſee the land in 58 and 60 fathom.

From cape Cleare to the eaſtwards unto waterford, men may ſee the land in 54 fathom. The moſt part of the ſouth-coaſt of Ireland, men may ſee in 35 & 40 fathom. In 35 fathom you ſhall not be farre from the land. Therefore come no neerer Ireland by night then in 40 fathom.

Courſes and Diſtances.

From Sleynhead unto the Bay of Galloway, ſ. e.	9 leagues
From the Bay of Galloway to Lupiſhead the north-poynt of Limbrick-haven, ſ. ſ. w.	11 or 12 leagues
From Lupiſhead to Smerrick ſ. w.	8 leagues
From Smerrick to the Blaskeys w. ſ. w.	4 leagues
From Sleynhead to Sinbrandonhill. ſ. and by w.	22 leagues
From the Bay of Galloway to the Blaskeyes, ſ. w.	23 leagues
From the Sound of Blaskeyes unto the Skellocke, the courſe is ſ.	6 leagues
From Dinglehaven unto the Skellockes, ſ. w. & by ſ.	7 or 8 leagues
From the Skellockes unto the Dorſeys, ſ. e.	6 leagues
From the Dorſeys to Mizanhead e. ſ. e. & ſ. e. & by east	7 or 8 leagues
From Mizanhead to Sheepſhead, north	2 great leagues
From Sheepſhead to Beerhaven, the courſe is north and by weſt ſomewhat weſterly, ſcarce	5 leagues
From Mizanhead to Beerhaven, n. and by w.	5 leagues
From Beerhaven to the Iſland Whiddy, the courſe is e. n. e. and northeaſt & by east	7 or 8 leagues
From the Dorſeys to Silly ſ. e. & by east	56 leagues
From the Dorſeys to C. de Finiſterre, ſ. & by east, and ſouth	173 leagues
From Mizanhead to cape Cleare e. & by ſ. diſtant	7 leagues
From cape Cleare to Croockhaven n. w.	5 leagues
From cape Cleare to cape Veelo or Oldhead e. n. e. & n. e. & by e.	14 leag.
From cape Cleare to the Lands-end of England e. ſ. e.	53 leagues
From cape Cleare to Silly ſ. e. & by e.	46 leagues
From cape Cleare to cape de Finiſterre, ſouth	173 leagues
From Oldhead, or cape de Velho, to the haven of Kinſale, is the courſe north and by east	2 leagues
From Oldhead, or cape de Velho to Corck, e. n. e.	5 or 6 leagues
From cape de Velho to the Lands-end of England, ſ. e. & ſ. e. & by e.	45 lea.

Heights.

Cape Clear lyeth in	51 degrees 12 minutes.
Cape de Velho, or Oldhead lyeth in	51 degrees 28 minutes.

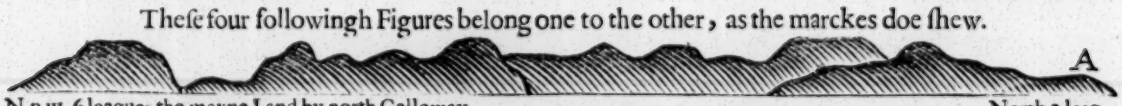
How theſe Lands doe ſhew them ſelves at Sea.

The Iſlands, as alſo the mayne land by north and by ſouth the Bay of Galloway, ſhew, as you may ſee in theſe five following Figures, when as you are right before the Iſland of Aron, which lye before the Bay of Galloway.



North being 8 leagues from you. N. N. E. 10 leagues.

Theſe four followingh Figures belong one to the other, as the marckes doe ſhew.



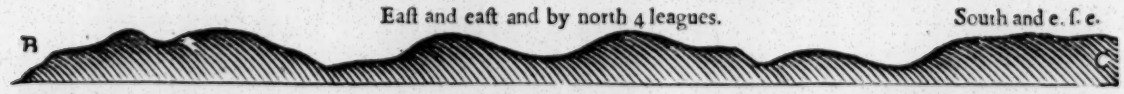
N.n.w. 6 leagues the mayne Land by north Galloway. North 3 leag.

Betwixt theſe two Iſlands it is 20 fatum deepe.

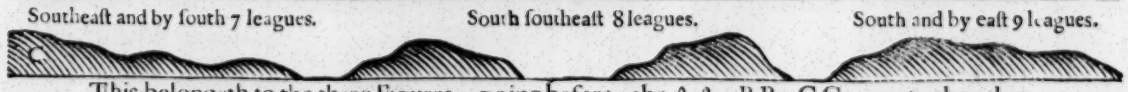


The three Iſlands of Aron before Galloway.

East and east and by north 4 leagues. South and e. ſ. e.



Southeaſt and by ſouth 7 leagues. South ſoutheaſt 8 leagues. South and by east 9 leagues.



This belongeth to the three Figures, going before, the A A, B B, C C, one to the other.

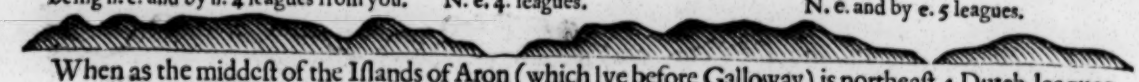
N. n. e. 4 leagues. East 5 leagues. E. n. e. 6 leagues. Being 8 leag. n. e. and by east from you.



Thus ſheweth the land on the Iſlands betweene Limbrick and Galloway, when as you come out of the Sea.

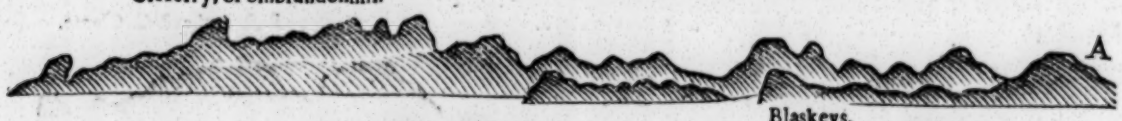
When

Being n. e. and by n. 4 leagues from you. N. e. 4. leagues. N. e. and by e. 5 leagues.



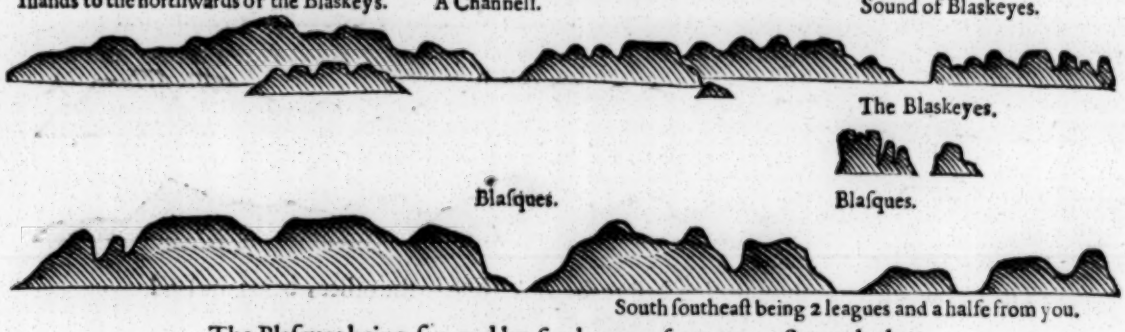
When as the middeſt of the Iſlands of Aron (which lye before Galloway) is northeaſt 4 Dutch leagues from you, it ſheweth it ſelfe thus: and that ſoutherly little Iſland ſheweth then low and flat.

C. Kerry, or Sinbrandonhill.



The land of C. Kerry, or Sinbrandonhill (by ſome called Devils hill) unto the Blaskeye, lying northeaſt and by eaſt 5 or 6 leagues, ſheweth as is Deſcribed out in theſe two figures, when the foreſayd hill of Sinbrandon is eaſt ſoutheaſt from you three or foure leagues.

Iſlands to the northwards of the Blaskeys. A Channell. Sound of Blaskeyes.



The Blaſques being ſ. e. and by ſ. 3 leagues from you, ſheweth thus.

Out Rock.



The higheſt rock of the Blaſques, being two leagues eaſt and by ſouth from you, ſheweth thus.

North northweſt.



The Blaskeyes, and the land to the eaſtwards of them, dow ſhew themſelves thus, when you ſayle from the Skelloks towards them.

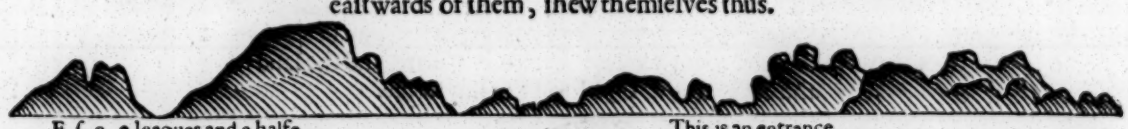
An entrance. All double ragged land. The Skellockes.



Thus ſhew the Skellockes with the land to the eaſtwards, or the northwards of them, when you are ſomewhat to the northwards of them, and ſayle alongſt by them.



When you are by the Skellocks, then the Iſlands lying to the northwards and to the eaſtwards of them, ſhew themſelves thus.



E. ſ. e. 2 leagues and a halfe. This is an entrance.

The Skellockes, being eaſt and by ſouth from you 3 leagues ſheweth thus.

Theſe Iſlands lye to the ſouthwards and to the eaſtwards of the Skellockes, the land from thence eaſtward towards the Dorſeyes, is all high broken & very ragged land.



This Iſlands lyeth betwixt the Skellockes, and the Dorſeyes cloſe by the land.



Thus ſhew the Dorſeyes, with the Rocks, Bull, Kow and Kalfe, which lye without them, they are to the ſouthwards of you.



This and the Figure following belong at the AA one to the other



When you are to the eaſtwards or to the ſouthwards of Dorſeyes, they ſhew as is ſhowne out in theſe 2 figures here before. The eaſt-end at B ſheweth allmoſt like Cape Cleare, being eaſt from you, but it is a higher land.

The

The Dorſeys. Hilly and very ragged Land. N. e. and by eaſt. A.



The two figures belong one to the other at the AA.

A broad Channell, but within it is all broken Land.

Mizanhead. East northeaſt C. Cleare.



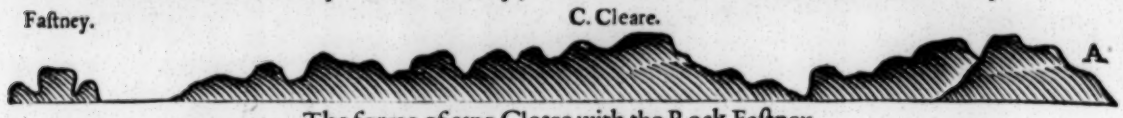
When as cape Cleare is e. n. e. from you, and Mizanhead n. e. and by eaſt, then is the land unto the Dorſeys in theſe formes, as is ſheweth in theſe two figures here before.

The Dorſeys. Mizanhead n. e. and by eaſt.



When as Mizanhead is n. e. and by e. about 2 leagues from you, then ſheweth the land to the northwards of it towards the Dorſeys. And then may you alſo ſee the Iſland of C. Cleare eaſt from you.

Faſtney. C. Cleare.



The forme of cape Cleare with the Rock Faſtney.



Rock a little to the eaſtwards of Baltemore.

This belongeth to the figure going before the A A, one to the other, being the land to the eaſtward off Baltemore.



Thus ſheweth C. Cleare, when it is north from you 5 leagues, and there it is 58 fathom deepe.



C. Cleare ſheweth thus, being north and by weſt from you.

C. Cleare.



The Cape Cleare, being northweſt 7 or 8 leagues of from you, ſheweth thus. If you then beare north you ſhall fall right with Old-head, & when you come neare the ſhoare, you ſhall looſe ſight of the high land, and it ſhall ſeeme to be all low land.

Land within. Land within. Land within.



This followeth the former figure, the eaſtermoſt hommockes at A are the high hills about Jochull, which you may hardly ſee when C. Cleare is n. w. from you 7 or 8 leagues of, they lye far within the land, and the clouds oftentimes hang over them.

C. Cleare. Old-head. Point of Corck within the Iſland. Hill within Jochull.



When you are before Old-head two leagues, or two leagues and a halfe a Seaboard the land, then ſheweth the land to the weſtwards unto C. Cleare, and the land to the eaſtwards of Old-head, in this forme.



Thus ſheweth Oldhead when it is w.ſ.w. a halfe league from you, then may you ſee the Haven of Kinſale open.

When Oldhead is weſt 2 leagues from you, it ſheweth in this forme.

When the point of Roſſe is weſt and by north from you, it ſheweth thus.



The land a little to the eaſtwards of Kinſale ſheweth thus.



The land to the eaſtwards of Corck towards Jochull, ſheweth in this forme.



Old ruineth houſes.

The Rock betwixt Jochull and Corck.



When you are to the eaſtwards of Corck, not far from the land, and that the harbours mouth doth begin to open, then ſheweth the land as it is deſcribed in theſe two figures, at the A, belonging one to the other, being neare the land it ſeemeth to be hig land, but a far of (when you can ſee the high innerland, within Jochull over the cliffe land) it ſeemeth to be but low.

The

The Second Part of the New

Lightning Sea Columne,

OR

SEA MIRROUR.

The THIRD BOOKE,

Of the

WESTERNE NAVIGATION,

CONTAINING

The Deſcription of France, Biſcay, Galiſſia, Portugall and Algarve, from Heyſſant to the Straight of Gibralter.

The firſt Demonſtration/

Where in are ſheweth

The Coaſts of France, from Ushant to the Iſland of Bel-Iſle or Boelin.

Ushant. THE Foure & Uſhant lye w. ſ. w. & e.n.e. 2 great leagues. Uſhant ſheweth it ſelfe at ſea at the ſoud-end low, & at the nord-end going up ſloping, upon the midſt of it ſtandeth a little flat Tower, by which markes it is eſay to be knowne. For to ſail throug within Uſhant, the cours from the Fourne to S. Matthewes point is ſ.ſ.e. 4 leagues. At the point of the Foure lye two rowers of litle Roks, & to the ſoudwards of them alongſt the coaſts lye 3 other heaps of roks, each of them about an Engliſh mile one from the other, run alongſt within two Cables lengts by the foreſaid roks at the point, which is much nearer the eaſt-ſide, or the maine land, then Uſhant, fur to ſhun the norther Haghels, which do lye betwixt Uſhant & the foreſayd rokes or Ovens, or elſe if you kepe S. Matthews Abbey in the low vally to the eaſtwards of Conoort, and ſaile ſo right with it, then you run through neareſt the eaſt-ſide, and in the middeſt of the channel, betwixt the foule ground and the Rockes, untill you come thwart of Blanck-bay, or neare Conquets-oort, there ſtandet a mill upon the hig land alone, when it is eaſt from you, then the ſouther Haghels lye w. and by n. from you, & the norther Haghels n. w. and by weſt: there is alſo a hig flat peece of land, a little to the Abbey of S. Matthewes, the top if it being even & plaine, like unto a long plaine houſe, when that commeth even without the point Conquets-oort, & the foreſayd mill be eaſt and by ſouth & e.ſ.e. from you, then lye the north Haghels weſt & by ſouth from you, ſo that when the foreſayd mil is eaſt thwart from you, then are alſo the Haghels weſt thwart from you. When Halman or Hayman hill (that is a high rock lying at the eaſt-end of Uſhant) commeth over the northweſt-end of the northermoſt Mollens, by the French called Cheminees, then are you alſo of thwart of the Haghels.

Blanck bay. Souther Haghels. Norther Haghels. Halman

Haghels. Hee that muſt turne to windwards from the Fourne towards Conquet, or S. Matthewes point, let him make uſe of theſe marks, in the point of Conquet-haven, or Conquets oort, are two valleys, the one is great, that is the weſtermoſt, and one little, that is the eaſtermoſt, in manner as is here pourtrayed.

Conquets-oort.

S. Matthewes Cloyſter. Conquets-oort.



When you runne over to the eaſtwards towards the land and that the Abbey of Saint Matthewes commeth a Capſtane barrs length to the eaſtwardes of the ſmalleſt valley, according as is ſhewed in this figure, then it is time to caſt about: & when you runne over to the weſtwards towards Uſhant, and that the foreſayd Abbey of Saint Matthewes commet a little without the point of Conquet Haven, you muſt alſo caſt about, for when the foreſayd Abbey commeth two ſhippes lengths without the foreſayd point then are you cloſe by the Haghels. The norther and the ſouther Haghels lye about a ſhot of a caſt peece diſtant one from the other.

Two or three Cables lengths thwart from the point of Conquet haven, or Conquets-oort to ſeawards lyeth a ſuncken rock, which with a ſpringh tyde commeth above water, called the Vintner, by the French le Bell. For to avoyd it commingh from the nordwards, or from the Fourne, and beingh come from the foreſayd markes (off S. Matthews Abbey in the great Valley of Conquets-oort) unto cloſe by Conquets-oort, then run cloſe about by it, alongſt within a Cables length of the point, or keepe the Abbey of Saint Matthews even without the point of Conquet-oort, and ſo cloſe about it, within a cables length as before is ſayd, and then you ſhall leave the Vintner a Cables length or two on the ſtarboard ſide of you, & can take no hurt of it. The Vintner

Conquets-haven. When the little Church upon the point off Conquets-oort is east from you, then is the Vintner west right thwart from you, or else when that the Souther-houses of Conquet, beginne to come without, or to the point of Conquet, then you have also the Vinter upon your side, west and weest and by south from you, a little shot of a cast peece.

Fenestiers If you sayle into Conquet-haven then runne about the point within a cables length, as is beforesayd; untill, you see the haven open, then you come against the Fenestiers, which are Rockes that lye of about a Cables length from the East-land of Conquet-haven under water. For to avoyd them, runne alongst by the norther-shoare, untill you come within the Haven. Betwixt the Fenestiers and the blanck Moynes (that are Rockes by S. Matthewes-point) is a good road under the Abdey of S. Matthewes, as well for them that are bound to the nordwards as to the southwards. If you will goe into this road comming from Conquets-oort, then run right with the blanck Moynes, untill that the Abbey of Saint Matthewes be east southeast from you, sayle then towards it untill you come before the Abbey, and anchor there in 6 or 7 fathom.

Blanck-Moines.

About a league to the eastwards of S. Matthewes-point, towards Brest, lyeth a suncken Rock, about halfe a shot of a cast peece from the north-shoare. If you will sayle into Brestwater, then goe from S. Matthewes-point away east and by south, and east southeast, and keepe the nord-end of the southermost Mollens, without S. Matthewes-point, so long, untill that the Mill upon the nord-land come to the nordwards of the trees, then you sayle alongst to the southwards of the foresayd Rock, and so doing you can take no hurt of it, but if you bring the south-end of the Mollens neare or to S. Matthewes-point, you shall not sayle to sayle upon it.

For to sayle to the nordwards of the foresayd Rocke, you must runne from S. Matthewes-point alongst by the North-land, and keepe the southermost Mollens-hidden behinde the great Rocke that lyeth of from S. Matthewes-point; and sayle them right with the west-point of Bartrams-bay, untill that the foresayd Mill standing upon the North-land, commeth to be northwest and by north from you, and the trees stand n. n. w. from you, then shall you be past the foresayd Rocke, but to runne alongst to the southwards of it, is best and broadest. For to sayle forth alongst to Brest (being past the foresayd Rock) you must run forth within two cables lengths alonghst by the northshoare. A little within the east-point of Cordon, or Claesdownes, lyeth a rane of Rocks, about the middest of the channell in the mouth of Brest-water, which at low water lye above water, and at high water are under water, called the Baginne, you may runne alongst on both sides of it, but to the northwards of it, is best, when the south-point of Brestwater commeth over the point of Crodan, then are you thwart of the foresayd Bagyne, which lyet about two cables lengths from the north-shoare, runne alongst to the northwards of it: When the Brest commeth without the point, saile then so rigt to it, you must anchor there with an anchor to Seaward in 8 or 9 fathom, and with a cable a shoare fest on a tree: When you come within the Bagyne, you may edge up to the eastwards, or to the southwards before the River of Landernau or Lesou, and anchor there under the south land, in 10, 12 or 13 fathom. Before the little Town Old-Croydan. Brestwater, or te River of Landernau lyeth in most east northeast, and it is Pilots water, hee that is bound in there, may take a Pilot to bring him in where he desireth to bee: It floweth there with an ordinary tyde, 3 fathom up and Downe, a southwest and by west, and northeast and by east Moone maketh there full Sea.

Baginne.

Lesou.

If you come to anchor within Brest, you must past for anchoringh ten Soubs, and for it you shall get a thicker of freedome. If it should happen that you should loose your shippe upon Brittaigne, you might there with challenge your goods, else they are unfree.

Bartrams-bay. Bartrams-Bay lyeth about 2 leagues to the eastwards of S. Matthewes-point, a little league past the foresayd suncken Rock, there is good anchoring for a north, and northeast wind in 10 and 11 fathom.

Croydan. Over against Bartrams-bay lyet Croydan or Claesdownes from Saint-Matthewes-point, southeast distant about three leagues, it is a great Bay, for to sayle from Saint Matthewes-point to Croydan, you must keepe the southermost Mullens even without the black Moines (that are the Rocks without S. Matthewes-point) and go away east and by south, and e. s. e. untill you come before the Bay, & may see open into it, then you shal see a Chappel, or litle Church stand upon a chindle, run in rigt wit it, anchor thereabouts, in 6, 7, 8, 9 or 10 fathom, there is the best road.

Mullens. The Mullens are the Rockes which lye there to the southwards off Ushant, and to the westwards from Saint Matthewes-point. Betwixt them and Ushant lyeth a Channell northeast and southwest throug, which is in different large and broad, and deepe enough there remaineth at low warer six and seven fathom water. Hee that commeth from the northwards, and cannot sayle a weather of Ushant and the Mullens, by reason of the Flood may run through here, or he that commeth out of the Sea, and with northerly winds, cannot sayle a weather of Ushant, may with a Flood run throug here, and so further his voyage, when men runne through here, either in or out, and keep the middle of the channel betwixt both lands they can take no hurt.

From Saint Matthewes-point to the race of Fontenay, or the Keyser and Lavender, the course is south and by east 6 leagues, betwixt them both lye divers Rocks, where off men must take good heed, as the Hen with the Chickens, the Collier, the Falconers, Scheminckelborrowers and other more. The Hen with the Chickens, and the middlemost Falconer or Foukenesse, lye from Saint Matthewes-point southeast and by east distant a league and a halfe, but the Collier lyet from S. Matthewes-point south southeast also a league and a halfe.

Hen wit the Chickens.

Falkoners. The Falconers, or Foukenessen lye from the west-point of Croydan about west southwest an English mile. The innermost or southermost Falconer lyeth from the northermost south southeast about a halfe league, or two shots of a cast peece, and from Croydan southwest and by south, and is coverd ad highest water. North northeast a cables length from it, lyeth another suncken Rocke, which at low water may even beseene. To the westwards of the northermost Falconer lyeth also a suncken Rock which at low water may even be seene.

The southermost Falconers.

The Hen lyeth from the Falconers west southwest about two cables lengths, or a shot of a cast-peece, it is a round sharpe rocke, it is round about it deepe and cleane, in 6 and 7 fathom.

The Hen.

The Chickens are two sharpe little Rockes, which at low water may even bee seene, and lye about the shot of a Base north northwest from the Hen, & west from the northermost Falconer.

The Chickens.

Scheminkelbroughs. The Scheminckelbroughs lye to the southwards of the Falkoners, men may run through betwixt them in ten sathom, to the point of Croydan, there is good road and anchor ground.

If you will sayle from S. Matthewest-point to the Race of Fontenay, you must goe away south and by east, and bring the Mill of Fenestiers, with standeth upon the east-point of Conquet-haven, over the point of S. Matthewes, a little to the westwards of the Abbey, and keepe them so standing so long as you can see them, and you shall not come to neare the foresayd Rocks, to take any hurt of them.

Keyser. When as then you come to the Keyser & Keyserinne, first give the Keyser a birth, because of some suncken Rockes which lye off from the east-side of it under water. From the south west-side of the Lavender runneth of a foule ledge of Rockes, called the Calfe, there the tyde falleth very strong over it, with very great rippeling. This Channell of the Race of Fontenay, lyeth through betwixt the Keyser and Lavender s. s. w. and n. n. e. Hee that will sayle throug here, must be very carefull to cast his tydes well, for it runneth most thwart over this Race, so that with a southwest wind, and an outfall or ebbe, and also with calmes, it is very dangerous to come into this Race.

Lavender.

Race of Fonteney.

Seames. A little to the southwards of the Keyser, lyeth the east-end of the Seames, & lye from thence at least 3 or 4 leagues w.n.w. into Sea. A great league northwest from the west-point of Seames, lyeth a suncken Rock, where of men must take heed.

And west southwest about 2 leagues from the Seames, lyeth a row of rocks, like a banke, where upon it is not deeper then 7 fathom, but betwixt the rocks and the Seams, it is 50 fathom deepe.

Broad sound. Betwixt the Seames and Ushand the broad sound lyeth in

in e. n. e. to S. Matthewes-point, and from S. Matthewes point w. ſ. w. 5 leagues into Sea.

Frieze-bay. To the weſtwards of Fontenay, or the Lavender, lyeth the Frieze Bay, there men may anchor for a ſ. e. and east wind, in good anchor ground.

Bol-davids bay. To the eaſtwards of the Frize Bay, lyeth Boldavids bay a broad deep ſound, lying into the land e. n. e. At the eaſt-ſide of that haven lye two little Iſlands or rocks, where men may anchor round about them, & lye ſheltred for al winds.

From the Race of Fontenay to the Pennes, the courſe is ſ. e. ſomewat eaſterly about 10 or 11 leagues, betwixt them Old-yarne. both lyeth Oldyarne, a good Haven, about 7 leagues e. ſ. e. from Fontenay. Thwart before the entry of it lyet a banke where men may run about it on both-ſides in 6 fathom.

The ſouth-point of this Haven is flat, therefore run in alongſt by the north-point, there is at low water not leſſe then 3 fathom depth. From Oldyarne to the Pennes it is ſ. e. and by ſouth.

If you wil anchor before Port Kapſtand, you muſt anchor in 12 or 13 fathom, before the village that ſtandeth upon the hig land, about halfe wayes betwixt the point of the Race, and the great ſand bay of Oldyarn, where the little ſharpe Tower doth ſtand, the point of the Race ſhal then lye from you about n. n. w. and you ſhal then lye a half league from the land, further of from the ſhoare it is rocky and foule ground, as ſome ſay. There have ſome neverthe-leſſe come to ankor there by nigt in 3 or 4 leagues from the ſhoare in 25 fatum, but have not received any hurt neither of Cables nor Anchors.

The weſt-end of the Seames, and the Pennes, lye ſ. e. & by eaſt, & n. w. & by weſt, diſtant about 13 leagues.

Sheets. The knowledge of the land betwixt Fontenay & Oldyarne, are two round hils, which men doe cal the Sheets, or Slaeplakens, to the weſtwards of them ſtand two Mils. It is a very ragged point, and by theſe foreſayd markes very good to be known. Men may ſee them without the Seames in 55 fathom.

From Oldyarne to the Pennes lyeth the coaſt ſ. e. and by ſouth 5 leagues.

The Pens. The Pennes are very eaſy to be known, for him that hath ſeen them once: upon the ſ. e. end ſtandeth a thick flat Tower; a little to the weſtwards of it ſtandeth a ſharpe tower, and ſomewhat more to the eaſtwards againſt the hig land, ſtandeth a village appearing like a caſtle, upon the eaſt-ſide there of ſtandeth a flat tower, and there cloſe to the land lye two great rocks.

The Pennes lye off from the maine land, ſ. e. 2 leagues into the Sea. For to ſaile in there, you muſt come in there from the eaſtwards, and run alongſt by the ſtrand of the maine land, leaving al the roks on the larboard-ſide, until that you come to a great rock, which you muſt leave on the ſtarboard-ſide, and runne about to the ſouthwards of it, being paſt it, edge within it up towards the n. w. and you may anchor there a little within, in 3 fathom at low water, lying there, you can ſee no Sea, but at high water the Sea cometh very much tumblin in throug the roks: You may goe away from thence at high water ſ. e. throug the rocks into Sea, but you muſt take very good heed, becauſe it there ful of Roks where of ſome are above water, & ſome under water. Without the foreſayd great Rock in the comming in this haven, it is at leaſt 10 fathom deep, ſo that for need men might well ſave a great ſhip there.

Glanons or Glenant. From the Pennes to the Glannons or Glenant, the courſe is e. ſ. e. with that courſe you ſhall run alongſt to the ſouthwards of them. Within the Glanons lyeth a Haven, called Bindeth Bindeth, at the eaſt-point of that Haven it is full off rocks. For to ſaile in there, you muſt take heed unto theſe marks: there ſtand two Mils farre within the land, bring the eaſtermoſt off the two over a litle caſtle that ſtandet upon a point within the haven, & run in keeping them n. & n. e. & by e. in, & then you cannot take hurt on neiter off bot ſhoares, & being come within the haven, anchor before the Town.

A league ſ. w. from Gloyland or Glenant, by de Dutchmen called the Eaſter-Penmarkes, lyeth a great Rock under water, but is good to beſpied, in regard the Sea alwayes braketh upon it; as wel within as without this Rock it is 40 fathom deep.

When you come off from the Pens, with an e. ſ. e. courſe, you ſhall runne alongſt farre enoug to the ſouthwards of it. About two leagues to the eaſtwards of Glenant, lye the Iſlands off Muttons, by the French called Iſles aux Moutons, you may ſaile throug betwixt them and the main land, unto Groy or Blavet, alſo you may anchor within them in 10 or 12 fathom, betwixt the land and the foreſaid Iſlands, which are cleane upon the north-ſide. Mutons Iſland.

Betwixt the Iſland Mutton & Glenant lyet a rock for to avoid it (for them which wil ſaile throug there betwixt them) they muſt leave one third part of the channel towarts Glenant, & the other two third parts towards Mutton, and then may boldly run throug there without feare.

From Mutton to the Iſland Groy the courſe is eaſt & by ſouth, upon the outer-ſide of Groy ſtand 3 or 4 Mils, the eaſt-end of it goet ſteepe downe, and the weſt-end ſloping and flat down, thereby it is good to be known. Under Groy is good anchoring for a ſ. w. winde in 6 or 7 fathom. Under the n. e. point alſo is a good road for w. ſ. w. and n. w. winde, there is very good anchor ground. At the ſ. w. end runneth off a foule ledge, where of men muſt take good heed. Groy.

Within the Iſland Groy lyet the haven off Blavet, which lyeth in about n. w. in 4 and 5 fathom. Upon the weſt-ſide of this haven ſtandeth a hig ſharpe Tower, called Quinperly, from the eaſt-point runneth of a great ledge of roks, called the Baers, within it on the eaſt-ſide of the entry of the haven lye two ſunken roks, alſo on the weſtſide a Rok with a hole, which at halfe ebbe is uncovered, where of men muſt take very good heed in comming in; men run in alongſt by the weſt-land, for to eſchew the foreſaid ſunken rok and foule grounds. The marks for to ſaile in there are theſe, there lyet a little Iſland within in the middeſt of the haven, which you may ſee when you are without the Haven. To the eaſtwards of that little Iſland upon the maine land, ſtandeth an Abbey; bring that Abbey rigt to the eaſt-point of the haven, which lyeth within the Baers, and ſaile in with it, uutill you come thwart of the eaſt-point within the Baers. And runne in about by it. Being within it, there it is wide and broad, you may anchor there before the foreſaid little Iſland in 5 or 6 fathom, there it is at low water 3 or 4 fathom deepe, or elſe men commonly runne in about, by the point, until they come in the oaze. Blavet.

From the Pennes unto Bel-Iſle, the courſe is e. ſ. e. 20 leagues, but from Groy to Bel-Iſle it is ſ. e. 5 leagues. Bel-Iſle hat at the n. w. end a ſteepe point, lying out with a great ſaddle, thereabouts ſtand alſo ſome little houſes, and the end goeth very ſteepe downe.

Road to know Bel-Iſle. When as Bell-Ile n. n. e. from you, the weſt-end ſheweth it ſelfe in tree parts: the weſtermoſt where of is a great rock, which floweth at a very high water almoſt under, at the eaſt-end there divideth it ſelfe of alſo a great rock: by theſe foreſaid marcks it indifferent well to beknowne, men may ſee Bell-Ile out of the Sea in 55 fathom. At the ſoud-ſide lye of many rocks and little Ilands

Road under Bell-Iſle. If you will ſecke a roade under Bell-Ile, then you muſt give the n. w. end a good birth, of from lyeth a ſunken rock under water, a good wayes from the land: being come within it, ſaile then within two Cables lengts alongſt by the land, within a Baſe ſhot about by the nord poynt, until you come before the village wich a little ſharpe Tower, called Pauls, there ſtandeth a Caſtle upon the poynt to the weſtwards of te foreſayd little Tower, anchor within that poynt in 9 or 10 fatum, there you ſhall lye landlockt for a ſ. ſ. w. and n. w. wind. If it blow more northerly, you muſt ſhift, and runne before the eaſt-end (wich is about halfe a league broad) anchor there in 10 or 11 fathom. This Iland lyeth about ſ. e. and n. w. according as the winde bloweth, men doe ſhift there from one road to another, it is there every where good riding.

Within the Iland Bell-Ile, to witt, betwixt Bell Ile, and the maine land lye many litle Ilands, where at divers places men may ſayle throug to the Rivers of Vannes, or Morbeam, Roche Barnard, and the River of Nants, called the Loire. Of theſe Ilands are three the principall, the eaſtermoſt is called the Cardinall, the eaſt-point where of, and the eaſt-point of Bell-Ile lye one from the other direct eaſt and by nord, and weſt & by ſoud about 4 leagues. The middlemoſt is called by ſome alſo the Cardinall, or elſe to gether with the eaſtermoſt the Cardinalls. This hath a good haven on the nord-ſide, going in by a great Rock. From the n. w. point of the northermoſt, runneth a ſandy ſtrand unto the maine land, againſt the point betwixt Blavet and Morbeam, ſo that men cannot ſaile there betwixt that and the maine, but at high water it is moſt covered, and at low water it lyeth moſt dry, at low water men may goe over there one foot from the Iland to the maine land. Cardinall. Sand-banck.

He that commeth from the weſt, and is bound to Morbeam, Rocke Barnard, or other places there about, muſt run to the ſoudwars of it, if he wil not ſayle about to the ſoudwards of Bell-Ile, he may ſayle throug betwixt the northermoſt and the middlemoſt Iland, and alſo he may ſayle throug betwixt Bell-Iſle, he may ſaile throug betwixt te northermoſt and the middlemoſt Iſland, and alſo he may ſayl throug betwixt Bell-Iſle & the foreſayd Iſlands, about to the eaſtwards of the Cardinall. The channell there betwixt them both, is above a league broad and cleane, it lyeth throug e. ſ. e. and by eaſt, men may run alongſt by the Cardinalls eyther by nigt or by day in 8, 9 and 10 fathom, all cleane ſand ground.

For to ſaile throug betwixt the weſtermoſt wich is faſt at the nord-end with the ſtrand to the mayne land, and the middlemoſt Iſland, the courſe is

from the n. w. end of Bell-Isle e. n. e. A little from the east-end of the foresaid westermost Island, lyeth a great round Rock, which you must leave on the larboard-side, and run alongst by it, within two of three cables lengts, and then you shall leave on the starboard-side to Seawards of you great many Rocks, some above and some under water, wich lye towards the other Islands, which you must give a greater birth to, then to the foresayd great Rock. From this foresaid channell to the River of Morbeam, or S. Johns, the course is n. e. and by east or els if you run about to the eastwards of the Cardinall, & are bound to Morbeam, then goe away from te east-point of the Cardinall first n. w. & n. n. w. and you shall have then in that fareway 8 & 9 fatum depth, goe then by little & little more northerly rigt with the poynt, wich lyeth to the westwards off S. Johns, there runneth of the sayd poynt of S. Johns, a ledge or riffe off Rocks almost a halfe league in to the Sea wich you must give the west-poynt a birth to, and run in alongst by the east-shoare wich is flat, and lyeth from the Towers of S. Jolm to the River of Vannes n. w. & s. e. but you must be sure to reckon your tyde well in this Channell, for it runneth in and out the River of Vonnes so strong that you cannot sayle in with an Ebbe, althoug it blow a storm, likewise doth it to the contrary with the Flood, therefore you must saile in there with a stil water. At the middle poynt where the River doth devide it selfe in two (where of the one runneth to Vannes, and te other, to Auray) lye many rocks, the most part under water, which you leave on te starboard-side when you are bound to Morbeam or Auray, & on te larboard-side when you are bound to Vannes when you are come from so far within, that the Tower of Morbeam is west from you anchor there in the middlest of the Haven, in 9 fathom, & then shall Auray the innermost little Tower lye n. n. w. from you, and the other little Tower north & by east but the point of Mayland e s. e. The west shoare thwart of it is very steepe, oasie and soft, you can take no hurt of it, althoug you sayled right against it.

The east poynt of the Cardinall, and the entring of the Haven of Morbeam lye n. n. w. & s. s. e. one from te other.

Of the Tydes and Courses of the Streames.

WIthout Ushant a w. s. w. & e. n. e. Moone, and within the Trade a s. w. and by west Moone maketh full Sea.

At S. Matthewes-poynt, a s. w. and n. e Moon maketh highest water.

In the broad Sound, betwixt Ushand and the Seames a w. s. w. & e. n. e. Moone maketh the highest water: The flood falleth very strong upon Ushant, an to the soudwards of it throng the Mullens. Thwart over the Trade, towards the Backovens. Likewise in throng the broad Sound unto Brest. Also alongst by S. Matthewest poynt towards the Fourne, or Backovens, with great rippeling. He that commeth sayling about Ushant, must reckon there upon.

In the Race of Fontenay a s. w. & by soud and n e. and by nord Moon maketh full Sea. The Flood falleth very strong throug betwixt the Keyser, somewhat thwart over towards the Lavender, with very great rippling over the Calse, (that is the ledge of Rocks, which leyth of from te Lavender) and from thence forth n. & n. & by w. inwards to S. Matthewes-poynt: With calms men must take very good heed not to be miscaried the current. With stormy weather out of the nord or soud it is not without danger to come in this channell, especially with an Ebbe or out-fall.

On these Coast of Brittaigne, & the Islands there about, a s. w. & n. e. Moon maketh te highest water: but within the Havens, Rivers, indraugt, & bayes, a s. w. & by w. & n. e. & by east Moone, or a poynt later, according as the haven or rivers doe lye deepe in the land. Men doe not reckon there any setting or running of the Streames, for the flood commeth (throug the swelling of the great Oceaen) rigt against the coast, & so runneth onely into the havens, the ebbe contrariwise goeth thwart from te shoare to Seawards, when it falleth so that men cannot perceive any course of Streames except it be a little throng, or about some poynt off Islands.

On these lands, as on all the coast of Brittaigne, a n. e. & s. w. Moon maketh high water, and within the Havens, Rivers and indraugts, a poynt or two later, according as they lye far within the land.

On the Coastes and Ilands a. s. and n. e. Moone maketh high water, within the Haven and Rivers a poynt or two later, according as they lye farre within the land.

Of the Depths about these Places, and in what Depths men may see the Land.

THE Back-ovens, or the land the Fourne men may see in 50 fathom.

Ushant being about soud from you, may see in 50 fathom.

Soudwest from Ushant 5 or 6 leagues of it is deepe 75 fathom, & then you may see the land from the hoop.

In the Broad Sound it is 45 fathom.

A little without the Seames, about a league, it is deepe 50 fathom.

Men may see the Seames & the Sheets, or Slaepkens in 60 or 65 fatum.

Betwixt Ushant & the Seames in the fareway it is deepe 55 fathom.

Thwart of the Pennes and the Glannons men may see the land in 55 and 60 fathom.

Bell Isle men may se from below in 55 but under the top in 60 fathom.

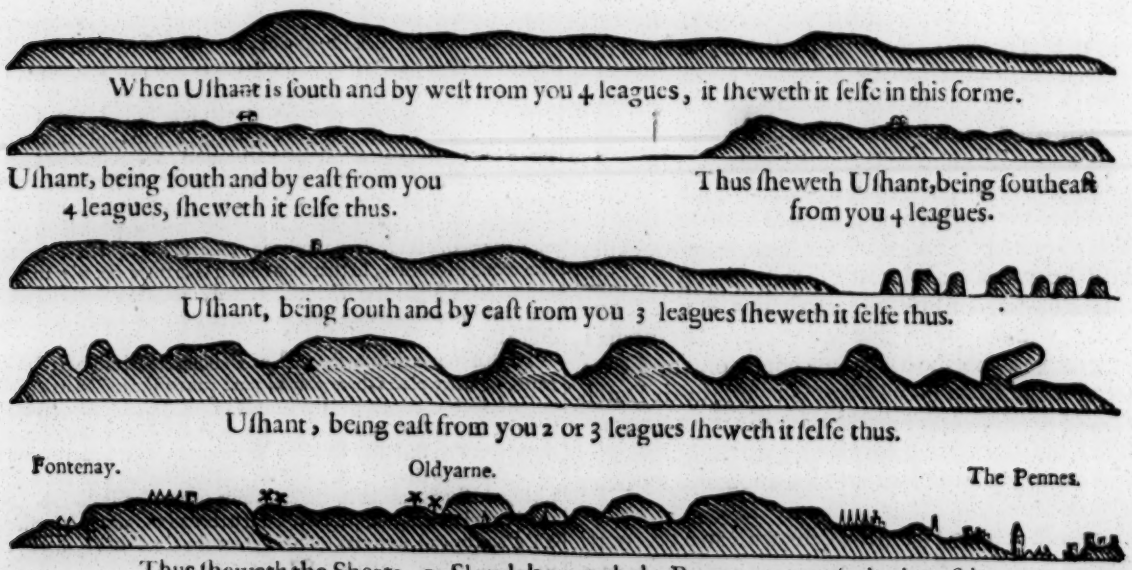
How these Lands doe lye one from the other, and from other Lands.

FRom the Fourne to S. Matthewes-point, s. s. e. & se. & by s.	4 or 5 leag.
From S. Matthewes-point to Croydon, or Claesdowne, e. s. e.	3 leagues
From S. Matthewes-point to the Race of Fontenay, or the Keyser south & by east.	6 leagues
From Ushant to Portland, n. e.	53 leagues
From Ushant to the Steart, n. e, & by north	39 or 40 leagues
From Ushant to the Lizart north	29 leagues
From Ushant to Silly n. w. & by north and n. n. w.	34 leagues
From Ushant to cape Cleare in Ireland, n. w.	78 leagues
From Ushant to the Island of S. Michaels, s. w. and by west	360 leagues
From Ushant to the cape Finisterre, s. s. w. somewhat westerly	121 leagues
From Ushant to Cysarga, s. s. w.	110 leagues
From Ushant to cape Prior, s. s. w.	105 leagues
From Ushant to cape de Pinas, south	93 leagues
From Ushant to Laredo, s. s. e.	104 leagues
When men sayl away south and by east from Ushant, then they run a little without the Seames.	
From the race of Fontenay to the Pennes s. e. somewat easterly	10 or 11 lea.
From Fontenay to Old-Jarne, s. e. e.	7 leagues
From Old-Jarne to the Pennes s. e. and by south	5 leagues
From the west-end of Seames to the Pennes, e. s. e. and by east	13 leagues
From the Seames to the Band or Crage of Oleron s. e. & by east	68 leagues
From the Seame to the Bayon in France s. e. somewhat southerly	102 leag.
From the Séames to S. Sebastians s. e. and by south	102 leagues
From the Seames to Bilbaw, s. s. e. somewhat easterly	96 leagues
From the Seames to S. Andero, s. s. e.	92 leagues
From the Seames to cape de Pinas, or Tores, south	81 leagues
From the Seames to Ribadeus south and by west	89 leagues
From the Seames to cape de Ortegall, s. s. w. somewhat southerly	4 leagues
From the Seames to C. Finisterre s. w. & by s. somewat southerly	112 leag.
From the Seames to Silly, n. n. w.	45 leagues
From the West Pennes, to the East-Pennes or Glannons, e. s. e.	6 leagues
From Glannons or Gloyland to Groy, east and west	9 or 10 leagues
From the east-end of Groy to the west-end of Bell-Isle, s. s. e	5 leagues
From Glannons or Gloyland, to Bell-Isle, s. e. & by east somewhat easterly	13 or 14 leagues
From the n. w. end of Bell-Isle to the s. e. end, the course is s. e. and by east	5 leagues
From the West-Pennes, to Bell-Isle e. s. e.	21 leagues
From the east-end of Bell Isle to the east-end of the Cardinall, east and by north	4 leagues
From the eastpoint of th Cardinal, to the entring of Morbeam, n n. w.	4 lea.
From the West-Pennes to Viverus s. s. w.	81 leagues
From the West-Pennes to Sysarga s. w and by south	102 leagues
From Groy to Viverus, s. w. and by south	90 leagues
From Groy to cape de Finisterre, s. w.	123 leagues

Heights.

USHANT lyeth in	48 degrees 30 minutes
The Seames lye in	47 degrees 58 minutes
The Island Bell-Isle lyeth in	47 degrees 5 minutes.

How these Lands doe shew them selves at Sea.



When Ushant is south and by west from you 4 leagues, it sheweth it selfe in this forme.

Ushant, being south and by east from you 4 leagues, sheweth it selfe thus.

Thus sheweth Ushant, being southeast from you 4 leagues.

Ushant, being south and by east from you 3 leagues sheweth it selfe thus.

Ushant, being east from you 2 or 3 leagues sheweth it selfe thus.

Thus sheweth the Sheets, or Slaeplakens with the Pennes, as you sayle alongst by them, & that they are about 4 leagues thwart from you.

48 47 46 45 44 43

FRANCKRYCK

POICTOU.

BRITAIGNE

BISCAYA. GALLISSE. POR

Nantes

Bourdeaux

Bayonne

S. Sebastiaen

Bilbao

C. Machichaco

C. de Ortegal

C. de Finisterre

Corunna

Ribadeus

S. Andero

Gyon

Torres

Villa Vicios

Rio de Seles

Bilbao

Duytsche mylen 15 in een graet

Spaensche mylen 17½ in een graet

Eng. en Fran. mylen 20 in een graet

Pas Caart van

HISPANGIEN

Vertoonende de Cuſten van Granada, Andaluzie, Algarve, Portugael, Galiſsien en Biſcaïe, met een gedeelte van Vranckryck: ſtreckẽ van Aeyſant tot de ſtraet Gibralter.

NB. de Bocht van Vranckryk ingekort en verbetert door A. en I. de Bree.

'T AMSTERDAM.

By Jacobus en Caſparus Lootsman op't water in de Lootsman.

PORTUGAESJA.

ANDALUSIA.

GRANADA.

BARBARIA.

ALGARVE

Gibraltar

Straet van Gibraltar

Lisbona

Setubal

Porto

Aveiro

Barlingas

Cabo Espichel

Cabo Roca

C. Sacratif

C. S. Maria

C. S. Vincent

Cassasa

Tarquirate

Buzema

Bozencor

Velez Malaga

Malaga

Marbella

Tetuan

Larache

Arzila

Tanger

Ceuta

Salee

Mamora

Rio de Ouro

Port a Port

Ilha de Berlinga

Ilha Forte

Ilha Farilhão

Ilha Pedra

Ilha Cabeliro

Ilha Grande

Ilha Pico

Ilha Fayal

Ilha Flores

Ilha Corvo

Ilha Graciosa

Ilha Terceira

Ilha S. Jorge

Ilha Pico

Ilha S. Miguel

Ilha Santa Maria

Ilha Madre de Deos

Ilha Flores

Ilha Corvo

41 40 39 38 37 36 35

De Zee-custen van BRETAIGNE van Heysandt tot aen Boelyn. 't Amsterdam; By Iacob Theunisz opt-water in de Loots man

B R E

Heysant

Breesondt

Boulogne

Fontenay

Vriesche haf

Sluys Lillens

Oostgierne

West Pen-markes

Noordhagels

Zuydhagel

Kimmenessen

Colongier

Schermickelbergen

Kaiser

Roads van Kamfeur

Roads van Fontenay

Wissant

Calais

Dunkerque

Duy[tsche] mylen 15 in een graet-

Spa[nsche] mylen 17½ in een graet-

Eng[elsche] Fran. mylen 20 in een graet-

A I G N E

Vannes

Auray

Clrcy

Blanet

Morbeam

Arzhan

Bindet

Glsylandt

Groye

Isles aux moutons

Glenant

Oostcr Penmarkes

Cardinael

S. Paul

Bel isle Boelin

BRETAJ

GE

P O

SAI

Poictou, en

van Boelyn

De Riviere Loire

Lanan

Byn Bay

Roche Bernard

De Ronner Vlieme

Nabarie

Les Pourceaux

Asserat

Croosvyck

Poelgeen

Ouddyn

S. Iohns

Pierre Percé

Pierre myn.

Le Four

Pierre de Lay

Picquelier

Cardinael

Boelyn

Bonges

de Grave

Noumonster Abdye

Armenters

Bosch

S. Hilaire

S. Nicolas

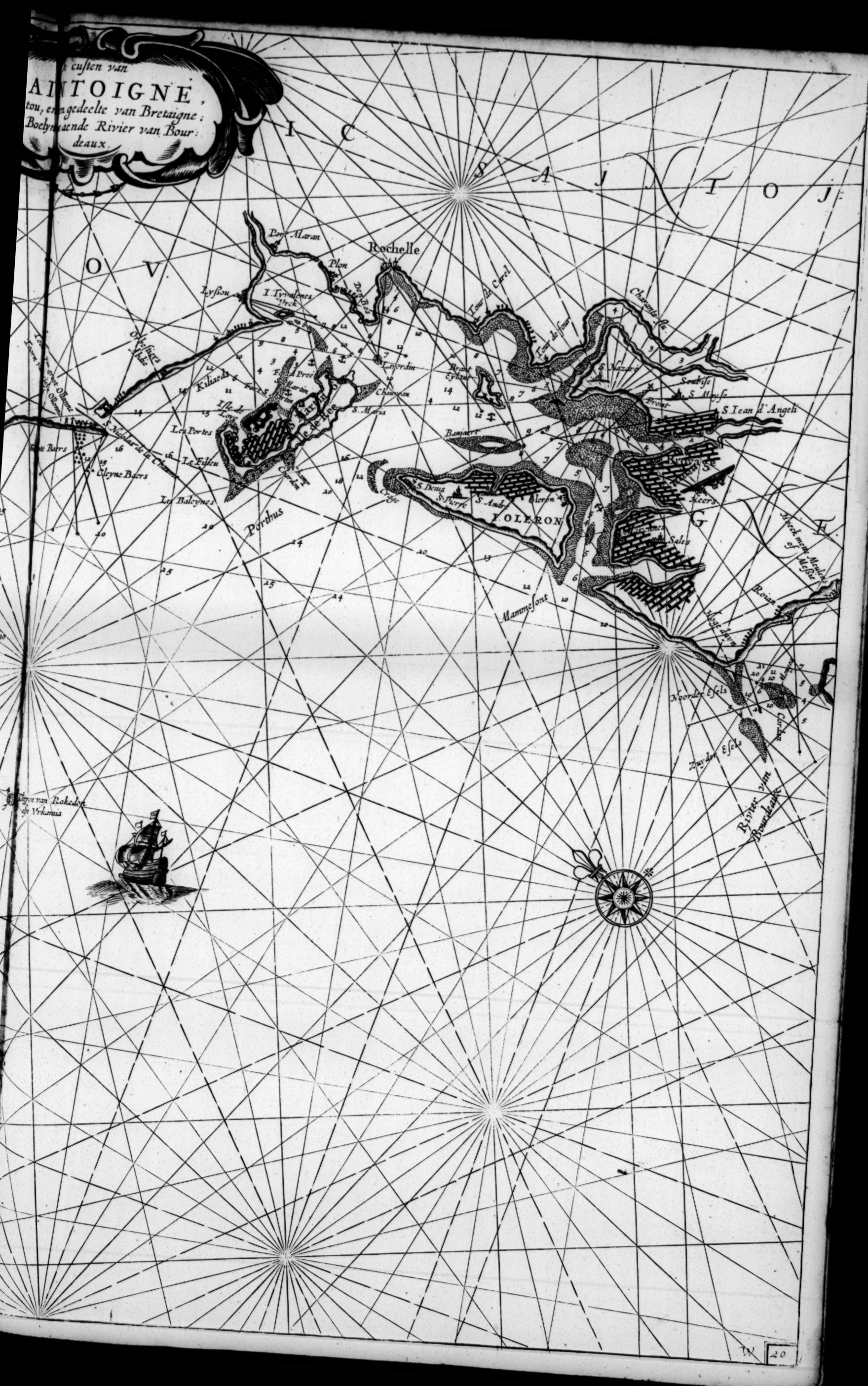
Heis

Duytsche mylen 15 in een graet

Spaensche mylen 17½ in een graet

Eng en Fra mylen 20 in een graet

… cuſten van
AINTOIGNE,
… tou, en een gedeelte van Bretaigne;
… Boelyn aende Rivier van Bour-
deaux.





Uſhant, being eaſt and by ſouth, and e. ſ. e. 3 or 4 leagues from you, ſheweth it ſelfe in this forme.



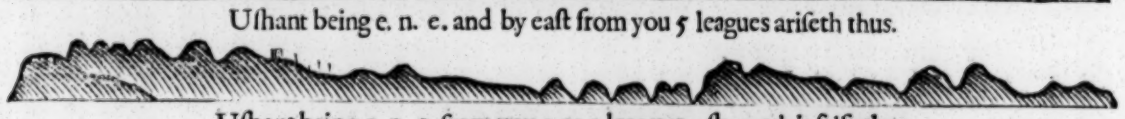
Thus ſheweth Uſhant, when it is eaſt and by ſouth from you 4 or 5 leagues.



When Uſhant is 4 leagues eaſt from you, it ariſeth in this forme.



Uſhant being e. n. e. and by eaſt from you 5 leagues ariſeth thus.



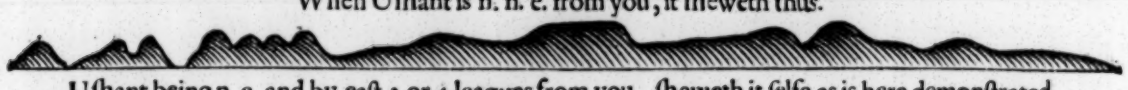
Uſhant being e. n. e. from you 2 or 3 leagues, ſheweth it ſelfe thus.



Uſhant being e. n. e. & by eaſt from you, ſo farre you may even ſee it from below, ariſet in this forme.



When Uſhant is n. n. e. from you, it ſheweth thus.



Uſhant being n. e. and by eaſt 3 or 4 leagues from you, ſheweth it ſelfe as is here demonſtrated.



Thus ſheweth the land betwixt the Pennes and the Glannons, when it is n. e. and by eaſt 5 or 6 leagues from you. This hill is very eaſy to be knowne, it overtoppeth in heigt all the land there abouts. The Pennes are then n. n. w. from you 4 or 5 leagues.



Thus ſheweth the land of Glannons, when you ſayle alongſt by it.

The land to the eaſtwards of Gloyland or Glannons ſheweth thus, when you ſayle alongſt by it.



Groy, being e. n. e. 5 leagues from you, ſheweth it ſelfe in this forme.



Groy, being northeaſt from you ſheweth it ſelfe in this forme.



Thus ariſeth Bell-Iſle, when the n. w. end is eaſt from you 4 leagues.



Thus ſheweth the weſt-point of Groy, when it is 3 or 4 leagues northeaſt from you.



When Bell-Iſle is n.e. from you 4 leagues, it ſheweth thus.



When Groy is n. n. e. from you 4 leagues, it ſheweth thus.



When the n. w. point of Bel-Iſle is eaſt and by north from you 4 leagues, & the ſ. e. point is eaſt & by ſouth & e. ſ. e. then it ſheweth thus. When as you ſayle towards it, and you come neare the land, then the pieces which lye of from the n. w. end, at leaſt come to be faſt unto Bel-Iſle.

The ſecond Demonſtration,

Where in is Contained

The Deſcription of the Iſland of Boelin to the River of Bordeaux.

FRom the eaſt-point of the Cardinall to the River of Roche Barnard, the courſe rigt n.e. there lyet a little Iſland about halfe wayes betwixt the Cardinall and the foreſaid River or rather nearer the Cardinall then the River (for when men are by the River, they can but even ſee the foreſayd little Iſland) men runne with the foreſayd courſe of n. e. cloſe alongſt to the weſtwards, of that little Iſland, and ſhal fall a little to the northwards of the River, run then within a Cables length alongſt by the ſhoare unto it, untill that the river doe open it ſelfe, and then ſayle in amidts the channell, and give the roks a birth that lye at the eaſter ſhoare. Being come within the roks, you may ankor there, or elſe ſayle on againſt the ſhoare on the ſtarboard-ſide, & ſo may ſave ſhip & goods without anchor or cable, if there ſhould be ſuch need. At low water with and ordinary tyde, there is about 11 and with a ſpring 9 foot water; with ordinary tyde it floweth there about a fathom, but with ſpring 2 fathom up & downe: the entring of the river lyeth in eaſt & by ſouth. A little to the eaſtwards of the Rivers mouth, lyeth a great rock which at hig water is covered.

Hee that commeth from the River of Nantes, and is bound

bound to Roche Barnard, and is not well acquainted there betwixt both, let him runne ſo far to Seawards of the Cardinall (when hee is to the weſtwards of the Four) untill that hee run about a Seaboard of that foreſayd little Iſland, (lying halfe wayes betwixt the Cardinall and the River of Roche Barnard) then goeth he ſurely cleare of all the foule ground and other dangers, men may ſayle cloſe alongſt by it to the weſtwards, but to the eaſtwards, of it lye many Roches and ſhoals.

Hee that will ſayle alongſt to the eaſtwards or to the northwards of it, muſt leave about two third parts of the water to the Iſland, and one third part towards the land, and ſo runne throug betwixt them, but muſt loocke out well.

Croswyck. Betwixt the Rivers of Roche Bernard and Nantes, lyeth Old-downes, Croiſill, or Croſwyck, & Poelgem Croſwyck hath two points, within the northweſt-point lyeth the great village of Croſwyck, which hath a thick Tower, and there is a great indraugt like a Haven, where men may goe to anchor in 5, 6 or 7 fathom: to the weſtwards of it ſtandeth alſo a flat Church upon the high land. The land off Old-downes lyeth a little to the northwards of the Church.

Old-downes Poelgem. Poelgem is a village to the eaſtwards of Croſwyck, with a high ſharpe Tower.

About 2 leagues from the land ſ.w. and by ſ. from Croſwyck, and weſt and by ſouth, ſomewhat ſoutherly, from the

The Four. eaſt-point of Poelgem, lyeth a great banck, called the Four, which at ſome places falleth dry at low water, & lyeth from Bell-Iſle near about eaſt & lyeth the longeſt way ſ.w. & n.e.

For to fayl in to the River of Nantes If you will ſayle from Bell-Iſle to the River of Nantes, then goe away from the eaſt-end of the Cardinall, or from the eaſtermoſt Roks that lye of from the Cardinall, directlye e. n. e. towards the weſt-point of Croſwyk, for to ſayle a weather of the foreſayd Four, ſo long untill it begin to ſhoale, and that the ſharp Tower of Poelgem commeth againſt the highſt of the eaſt-point of Croſwyck, then you runne alongſt to the northwards of the foreſayd bank, goe then e. ſ. e. or according as the wind is eaſt and by ſouth &

Pierre-perce. e. ſ. e. unto the Rock with the hole, called Pierre-perce, but ſo that you come not very neare (at low water) the land ſomewhat to the weſtwards of Poelgem, for it is not cleane alongſt by it. Betwixt the Fourne & the point of Croſwyk it is in the fareway 8 9 and 10 fathom deepe.

From the point of Poelgem eaſtwards lye ſome little Iſlands & Rocks, which are very foule, come not very neare them, nor the ſhoare thereabouts. If it ſhould happen that you ſhould turne to windwards, for at low water there falleth many of the Rocks dry, (when you come neare the Rock with the hole) then run alongſt to the northwards of it, and run in very cloſe by it, leaving it on the ſtarboard ſide of you or to avoyd the foule grounds, which lye off from the point of Poelgem towards this Rock. Cloſe alongſt by this Rock it is 4 fathom deepe. Being paſt thi Rock with the hole, then runne all alongſt by the north-ſhoare, unto Saint

S. Nazare. Nazare in 3 or 4 fathom at low water, but you muſt take heed of a Rocky point, ſomewhat to the weſtwards of Saint Nazare. the markes there of are theſe: There ſtandeth a Mill upon the hig land, ſomewhat farre within the Land when that commeth over a Countrey-manshouſe, which ſtandeth below by the River, then are you thwart of the Rocks being paſt them, keep yet the northſhoare, & runne alongſt by it, untill you come within the point of Saint Nazare, and anchor there in 6 or 7 fathom. In the middeſt of the River betwixt the foreſayd Rocks with the hole and

Les Porceaux. S. Nazare, lyeth a Row off Rocks called Les Porceaux theſe come at halfe tyde above water. Becauſe of them, and alſo more other ſhoals, lying in the River, you muſt run all alongſt by the north-ſhoare, as is before ſayd.

Somewhat within S. Nazare upon the North-land ſtandeth a ſharp tower, when that commeth without the ſouth-land, then you cannot take hurt of the foreſayd Rocks, run alongſt to the northwards of them, a little to the eaſtwards of them lyeth another ſhoale of Roks, where men may run about the eaſtwards of it with great ſhippes, it is there very ſhoale water alongſt to the point; being within the point, men may anchor, as is ſayd, in 6 or 7 fathom. To the eaſtwards of S. Nazare lye two other villages, & there betwixt the Villages it is very ſhoale, and ſtony ground, there men muſt borrow over the ſouther-ſhoare, but when you are halfe wayes to the eaſtermoſt Village then you may well ſayle right on with the point of the Village, untill you bee paſt it, but againſt that eaſtermoſt Village on the ſouth-ſide, upon the point, lyeth a bank, called Pynbut, which lyeth at Pynbut. leaſt halfe wayes over in the River, but men may runne through betwixt the point & this bancke in 5 or 6 fathom, this is the road for ſhippes that are bound out to Sea.

A league further in, in the middeſt of the River lye two ſtony bancks in the fareway. At Pelerin is the lading place, Pelerin. 2 leagues from Nantes, where the good are brougt of with Ligters from the ſhips, but from S. Nazare to Nantes, or Pelerin, it is Pilots water, which men do commonly take in, by the above named ſharp Tower, called Saint Nazare, S. Nazare. where men (when the are within it) may anchor in 10 or 12 fathom, and ſtay for a Pilot.

For to run into Sea from S. Nazare, alongſt to the ſouthwards of te Rok with the hole, you muſt run firſt alongſt by te northſhoare, as is before ſaid, until that you come without the ſecond point of the River, edge then of from the northland to te middeſt of the River, & ſaile a good wayes about to the ſoudwards of Pierre-perce, when as you can ſee rocke (which lyeth to the northwards of Pierre-perce) without te point, there in is deepe 4 fatum & a halfe, & when as Pierre-perce is n.n.w. & north & by weſt from you, then you come thwart of the Rok, & there you finde deeper water, to witt, 5, 6 & at leaſt 7 fathom, but when you come in the fareway of Pickeliers, then you get 10 or 12 fathom water.

Before the River of Nantes lye many bancks, but at half Bancks before the Loire. Flood men goe over them, the ſouth-point of the River of Nantes lyeth from the north-point, n. n. w. & ſ ſ e. 4 leagues aſunder, to the ſouthwards of it, the land lyeth in with a great indraugt, and there men doe run into the Bay. Theſe uneven bancks in the River of Nantes, are very unlike, ſometimes men found in 15 fathom, and preſently afterwards but 7 or 8 fathom.

But to ſayle from Bell-Iſle to the bay or Armentiers you Armentiers. muſt goe e. ſ. e. untill that you ſee the Abbey of Armentiers to the eaſtwards of the Trees, which ſtand within the land over the ſame Abbey, then goe on eaſt and by north ſo long untill that the Abbey come within the caſtle of Armentiers, then are you within the Moncks legge. Goe againe e. ſ. e. untill that you be within the Rock of Pierre- Pierremen. men, you may goe about it on both ſides, and when that you can ſee the Grave open, then you may anchor in 7 or 8 fathom, and row a ſhoare to feth a Pilot, it is Pilots water. From Bell-Iſle to Armentiers, the courſe is e. ſ. e. about 12 or 13 leagues aſunder.

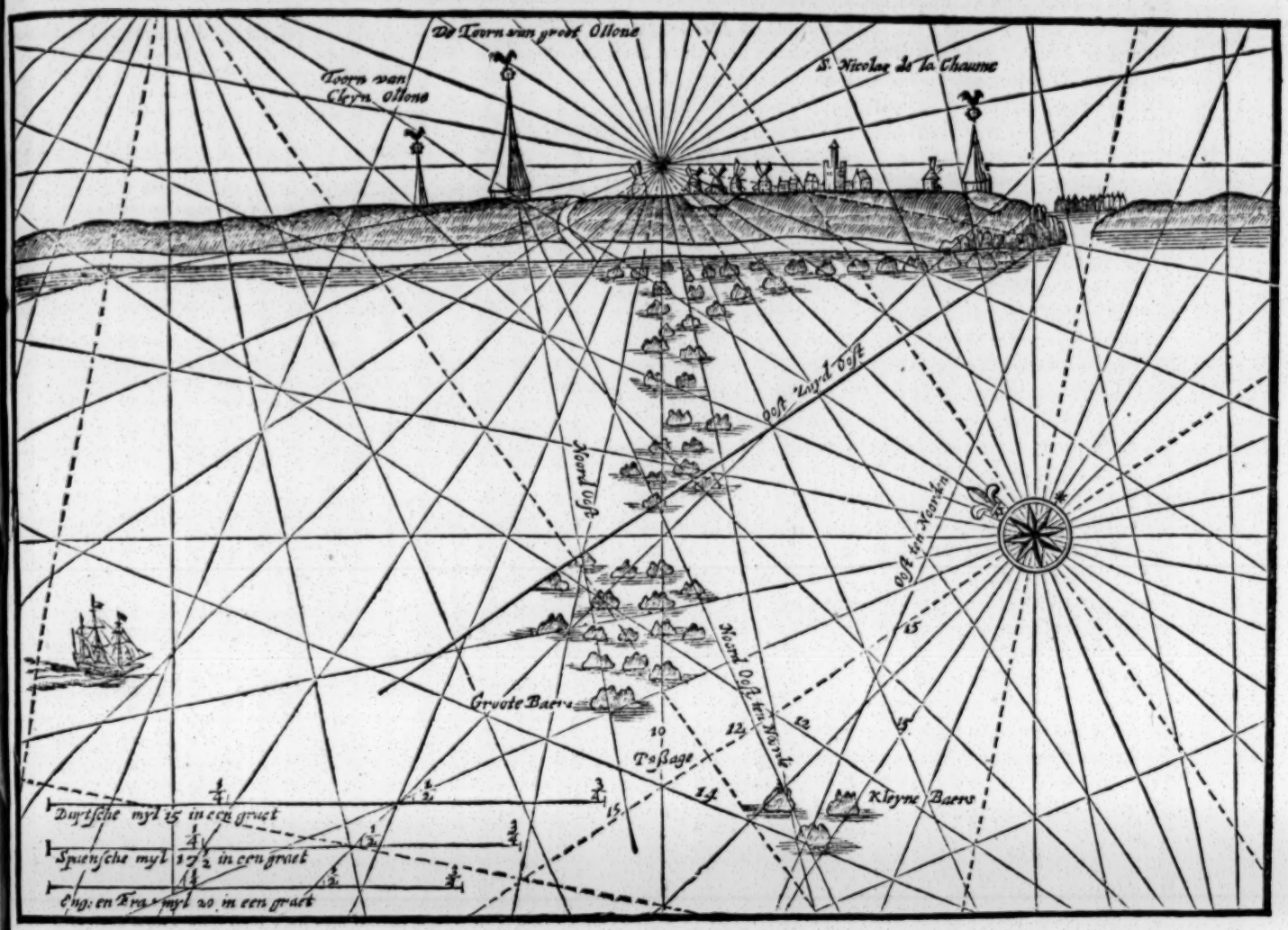
From Armentiers to Uſe, or Heis, it is ſouth & by eaſt 7 leagues, & from Bell-Iſle to Uſe or Heys, ſ.e. 16 leagues. The Iſland Pickeliers lyeth rigt before the point of Armentiers. Pickeliers. Betwixt Armentiers or Pickeliers and Uſe, it is an uneven fareway, with many ſhoales and Bancks from 4, 5, 6 and 7 fatum. Upon Uſe ſtandeth a ſharp Tower & ſome little Heis or Uſe. Houſes or Mills, where by it is very eaſy to be knowne. It is in the fareway betwixt Uſe & Bell-Iſle 35 and 40 fathom, but when men are within the fareway, it is 25 fatum deepe.

Under Uſe it is not very good ryding, the Sea commeth alwayes ſo rowling in, as if the water came through under the Iſland, at the north-end it is ſhoale water, the road is, when the Church ſteeples is ſ.w. from you, in 8 or 9 fathom, but men lye there noth ſheltred but onely for a ſ. w. and w. ſ. w. winde, and it doth ripple there allwayes very much.

From Uſe to the Killiats, or to the Iſland of Saint Martens, the courſes is eaſt ſoutheaſt twelve or thirteene leagues. Betwixt bot lyeth the Baerges of Olone about halfe league of from the land of Poictou, and caſt and by ſouth 7 leagues from Uſe in the right fareway, and in regard that it is nothingh but Rocks and ſtones, therefore it is not good to come neare them in darke weather, men may ſayle round about them, and at low water they are uncovered. If you will ſayle from Uſe unto the Killiaets, or unto the tayle of Aiſe, through within the Barges, then ſayle on firſt eaſt, and being within the Baerges of Olone, ſayle to the land of Poictou, which lyeth from Olone to Saint Martens Iſland eaſt ſoutheaſt, and from Olone to the Pickelliers northweſt.

The

The Deſcription of OLONE.



FRom Olone to the Killiaets the coaſt lyeth moſt e. ſ.e. 4 or 5 leagues. For to ſayle in to the Killiaets, which is in alongſt to the northwards of the Iſland of S. Marten, in betwixt the foreſayd Iſland & the mayne land of Poictou, you muſt goe in ſomewhat northerly then the middle of the channell, or leave two third parts of the channell towards S. Martens Iſland, and one third part towards the mayne land. Alongſt by the Iſland of S. Martens it is uneven, and ſomewhat full of banks; come not to neare alſo the mayne land, for there lye of alſo ſome banckes, but you may borrow of them by your lead. Goe in alongſt, as before is ſayd, untill that the Church of S. Martin be ſ. ſ.w. from you, then you ſhall be paſt the bank which lyet north from S. Martens, and lyeth of from the ſhoare ſomewhat to the weſtwards of Saint Martens, there is a hard ſteepe ſtony banke, which ſhoaleth up ſuddenly. For to avoyd it when as you muſt turne to and againe with an eaſterly, or a northeaſt winde, you muſt not bring the little Tower of Hars in the Village of Loy, but wen the little tower of Hars commet to the firſt, or nortermoſt houſe of Loy, then you muſt caſt about, for then you com againſt the banck, were remaineth at low water about a fathom depth, and at high water about 4 fat. When the fore ſayd little Tower of Hars commeth againſt a mill which ſtandeth at the ſouth-end of Loy, then are you within the banke, to wit, betwixt the banke & S. Martens. When S. Martens commet to be ſ.w & by ſouth, and ſ.ſ.w. from you, then you may boldly over the end of the bank towards S. Martens, you ſhall finde there at low water and ſpring-tide at leaſt 3 fat. or 16 or 17 foot alſo one caſt, or 2 but 12 foot, then it is all ſoft ground. as alſo before S. Martens, but the banks are hard, and with ſpring-tides there remaineth little water upon them. Before S. Martens you may anchor in 4, 5 or 6 fathom.

For to anchor before S. Martens, you muſt ankor ſo, that you may ſee open into the haven, & that the poynt of the Abbey & the Boſſe doe ſtand the lengt of 2 capſtane bars one from the other, there is with ſpring-tides at low water 3 fat. & a halfe, but at high water 6 fat. and a halfe deepe.

When you ſayle into the Killiaets, as before is ſayd, it is 12, 11 & 10 fathom deepe, but being come ſo far that the Tower of S. Martins beginnet to ſtand ſ.w. from you, there it will be bey little & little ſhoaler, and then you may well edge towards the Iſland in 5 & 4 fathom, it ſhoaleth then ſuddenly up, and will be ſeom ten quickly 5 & 4 fathom.

If you will goe over the banck that lyeth of from the Abbey with a ſhippe that drawet much water, then you muſt ſtay ſo longh that it be halfe flood, for at low water there remaineth no more upon it then three fathom, or a foot or two more: when it is ſomewhat flowed, then you may well goe over with a great ſhippe. When the little Tower of Huſſou commeth to the north-end of the Iſland Urck, or Tivalenes, then are you upon the ſhoaleſt of the banck, but when the little Tower commeth over the ſouth end of that little Iſland, then it beginnet to deepen againe.

The markes for to keepe the deepeſt water, when you run over the banck are theeſe keep the great Tower of Rochel a handſpikes length to the ſouthward of wood of trees, which ſtandeth upon the northermoſt high land, and run ſo over the banck, it is there all ſoft ground.

If you will anchor before the Abbey within the banke, then run in 6 or 7 fathom and anchor there.

But if you will not anchor under S. Martens, but will ſayle forth towards Burnt Iſland, then bring that foreſayd little Tower of Huſſou over the little houſe that ſtandeth upon the little Iſland Urck, and keep it ſo ſtanding, & then you can take no hurt of the Laverdyne.

The Laverdyne is a rane of rocks together a musket shot long, which lyeth off from the eaſt poynt of S. Martens Iſland, about an English mile, and with ſpring-tide at low water is uncovered. Betwixt and the Iſlands of S. Martens men may ſayle through, there is depth enough. The markes of the Laverdyne are theſe: When you come in at the Killiats, and ſayle through betwixt S. Martens Iſland and the Boſſe, and you come to ſee the great Tower of Rochell even without the poynt of the Boſſe, then are you right thwart of the Laverdyne, which lyeth then ſ.w. from you, Laverdyne.

it is the betwixt them both not very wyde: or elſe when the foreſayd great Tower Rochell ſtandeth even without the poynt of Boſſe, & the north-poynt, of the Plom a ships length without the ſouth-point (which is the north-point of the Boſſe) then are you right upon the Laverdyne, therefore when Rochell commeth a ships length to the ſouthwards of the Boſſe (when you come in at the Killiats) then are you paſt the Laverdyne, and you may boldly goe on ſ. e & ſ. e. and by ſouth towards Burnt-Iſland.

Porthus. Porthus is a broad & wyde channell, lying in throug betwixt S. Martens-Iſland and Oleron, & lyeth from Uſe ſ. e. & by e. diſtant about 15 leagues. If you will ſayle into Porthus, then run in betwixt both lands e. ſ. e. but much nearer S. Martens-Iſland, for to avoyd the banck of Oleron, which is a foule ledge of rocks, at the north-end of Oleron, come no neare it by night then in 12 or 13 fathom.

When you come then by the eaſt-end of S. Martens Iſland and are bound to Rochell, or elſe will anchor under the Boſſe, bring the great Tower or Rochell a ships length without the Boſſe, ſo you can take no hurt of the Laverduyn. You may anchor under the Boſſe in 5 or 6 fathom ſoft ground, ſo that the poynt doe lye north from you. Or elſe if you will anchor under the Abbey of Saint Martens Iſland, then run in upon the foreſayd marcks, ſo long untill that the foreſayd Abbey come without the ſouth-poynt of the ſame Iſland, ſayle then right with it and then you ſhall leave the Laverduyn far enoug on the larboard ſide of you. And being come neare the Abbey, anchor a little to the eaſtwards of it in 5, 6 or 7 fathom, there is the road for ships that are bound out.

When you goe into Porthus, and will ſayl to the Burnt-Iſland, then runne in (as before is ſayd) untill you come neare the eaſt-end of S. Martens Iſland: thence the courſe is ſ. e. & by eaſt, or from the Boſſe ſouth or ſouth and by eaſt, or with a weſterly wind, ſouth and by weſt unto that Iſland.

When you ſayle ſo neare Burnt-Iſland that the Tower or Voorn, or the Four, commeth over the Burnt-Iſland, there you may caſt your ballaſt over board, it is there 12 fathom deepe.

Burnt-Iſland. If you muſt turne to & againe with a ſoutherly windes from the Boſſe to the Burnt-Iſland, or from Burnt-Iſland to the Boſſe, then come not to neare the land of Rochell, there lye divers ſtony bankes alongſt the land, a good wayes from the ſhoare, where of you muſt take heed. When Rochell is hidden behinde the ſouth-poynt which lyeth over againſt the Creeke, there lyeth a ſtony bancke, upon which remaineth not a fathom of water.

If you will ſayle into the River of Sherrant, then runne about to the ſouthwards of Burnt-Iſland, you may alſo ſayle about to the northwards of it, and ſayle in by the Tower of Voorn, or Four. At low water this River falleth dry, at leaſt 4 leagues within the land. For to ſayle from Burnt Iſland to Burwage, you muſt ſayle away ſ. ſ. e. and keepe the little Tower off Heers to the weſtwards of the wood, ſo long untill the Tower of Voorn of le Four come over the little red tyled houſe, that ſtands upon the ſouth-ſide of the River of Sherrant, ſayle then in ſ. e. and by little and little ſ. e. and by e. untill that Pront (a village that lyeth upon the ſtrand) commeth to the northwards, of Soubiſe, when as then Soubiſe cometh within the foreſayd village, and the Mill above the village, then you ſhall be againſt the poynt of Oyſterbank: goe then in alongſt ſ. e. and by ſouth, and bring that outermoſt little Tower of Heers, over the outermoſt ſandy plate, where the gallowes ſtandeth by, keep them ſo ſtanding, and ſayle in ſ. ſ. e. when as then the little Tower of Heers commeth to the eaſt-ſide of the valley, which is in the wood, then keepe that ſharpe little Tower right over the eaſt-ſide off the valley of the wood, and ſayle into the Creecke, or River or Burwage. At Burwage was wont not to ſtand a Houſe, where now is a ſtrong fayre Towne, being builded ſo within 70 or 80 yeareſt paſt.

Oyſterbancks.

The Bannier lyeth alongſt the land of Oleron, and lyeth untill within Burnt-Iſland, at low water it is uncovered, and the tayle of it lyeth faire to the northwards. If you ſhould turn out from the Creeck towards the Burnt-Iſland, then bring the Tower of Rochell not without the Burnt-Iſland, before you come thwart of it, becauſe of the Banjard, and then you ſhall take no hurt of it. Banjard.

At the ſouth-end of Oleron, betwixt Oleron and the land to the ſouthwardes of it, is yet another channell, where men may ſayle in and out, called the Mammeſound, deep enoug for great ships, it lyeth in from out of the Sea, eaſt and by north being come there within, there runneth up a River ſ. e. towards Sales, where men doe lade Salt, being paſt that, to the ſouth other poynt of the Mammeſound, lyeth a place, where of men runne to the northwards upon theſe marcks: you muſt keepe the Mill that ſtandeth upon the lands of Oleron over the trees (and ſo you ſhall runne to the northward) of the Plate, there is the road for them that will lade Salt at Oleron or Olderdon. Ma mer

But if you will runne in throug, and out agane, then you muſt ſayle ſo farre to the eaſtwards, untill that Sales come over the trees, which ſtand within Merven, for to avoyd the tayle of riffe that ſhooteth of from Oleron: when Sales commeth over the trees, ſayle then north and by weſt on, the Burnt-Iſland, but bring Duke Charles Tower to the ſouthwards of the Burnt-Iſland, for not to ſayle within the Banjard. When the little Tower of Heers commeth to the wood, keepe it then ſo ſtanding untill Rochell commeth over the north-ſide of the Burnt-Iſland, ſayle then out at the Portrush. There ſhooteth of alſo a riffe from the weſt-end of Saint Martens Iſland, where of you muſt take heed. Riffe S. Ma tens Iſland.

About ſouth, or a little more weſterly 13 leagues from the Iſland Uſe, ſ. w. and by w. from the Iſland S. Martens, and w. n. w. or ſomewhat more northerly from the River of Bordeaux, lye the Rockes of Rockedon, of Rochebon, off ſome called Urkamia in forme of a Travet or Brandize. The ſouthermoſt of the three is the ſhoaleſt, where upon remaineth at low water about two fathom depth. At the ſoutheaſt-ſide the ground is black little ſtones, and at the northeaſt-ſide white ſand, but you may not come neare them by your lead ſound by them. Rok Roche bon.

A little to the weſtwards, not farre from the foreſayd rocks, lyeth yet another Rock, where upon is at low water 5 fathom water, nevertheleſſe with a ſtorme the Sea breaketh terribly upon it.

Of the Tydes and Courſes of the Streames.

Upon all the a foreſayd places, as likewiſe over the whole bending of the French Coaſt, as alſo before the River Bordeaux a ſ. w. and n. e. Moone maketh the higheſt water.

Of the Dephts about theſe places, and in what dephts men may ſee the land.

Bell-Iſle men may ſee from below in 55, but under the top in 60 fathom.

Without Uſe it is 35 fathom deep, and then men may ſee the land from below: when it is cleare weather men may ſee it in 60 fathom.

Weſt ſ. w. from Uſe about 9 leagues you ſhall find 45 and 46 fathom, the ground is full of fine ſmall ſtones as greate as courſe ſand and very ſteepe.

The land of Olone men may ſee it from below in 25 and 30 fathom.

Saint Martens Iſland and the north-end of Oleron men may ſee in 28 and 30 fathom. When men get ſight of S. Martens Iſland, they ſhall ſee upon it a high Tower, with a high houſe, and upon the ſtrand a Mill with 4 or 5 high ſand-hills. Upon Oleron men ſee a high ſpire Tower upon a red poynt, where men ſhall ſee ſome trees ſtand over it and to the ſouthwards of it, is at two or three places ragged ſand-hills.

How theſe Lands doe lye one from the other, and from other Lands.

From Bell-Iſle to the river of Bordeaux, ſ. e. ſomewhat ſoutherly	47 leagues
From Bell-Iſle to S. Sebaſtians, ſ. ſ. e. ſomewhat ſoutherly	75 leagues
From Bell-Iſle to S. Andero, ſouth	71 leagues
From Bell-Iſle to C. de Pinas or Tores ſ. ſ. w. ſomewhat weſterly	76 leag.
From Bell-Iſle to cape de Ortegall, ſ. w.	88 leagues
From Bell-Iſle to cape de Finiſterre, ſ. w.	121 leagues
From the eaſt-poynt of the Cardinall to Croſwyck, e. n. e.	7 leagues
From the poynt of Croſwyck to Pierre-Perce, e. ſ. e.	4 leagues
From the Cardinall to Old-downes, e. n. e.	7 leagues
From the north-poynt of the river of Nantes to the Picqueliers,	n. n. e. 7 lea.
From Pierremen to Armentiers, w. ſ. w.	2 leagues
From Armentiers or Picqueliers to the weſt-end of Uſe, ſ. and ſ. ſ. e. at leaſt	and by e. and 7 leagues
From the eaſt-end of Bell-Iſle to Uſe, ſ. e. ſomewhat eaſterly	16 leagues
From Uſe to the Barges of Olone, eaſt and by ſouth	7 leagues
From Uſe to the Killiates, or S. Martens Iſland, e. ſ. e.	12 or 13 leagues
From Uſe to cape de Pinas, ſ. w. and by ſouth	75 leagues
From Uſe to cape de Ortegall, ſ. w. and by weſt	93 leagues
From Uſe to Portrush, or the band of Oleron, ſ. e. and by eaſt	15 or 16 leag.
From the band or Crage of Oleron to the Tower of Cordan ſ. ſ. e. and ſouth and by eaſt	14 or 15 leagues
From Saint Martens Iſland to the Tower of Cordan, or the River of Bordeaux, ſ. ſ. e.	16 leagues
From S. Martens Iſlands to C. the Pinas, ſ. w. ſomewhat weſterly	80 leag.
From S. Martens Iſland to Ortegall, the courſe is weſt ſouthweſt ſomewhat ſoutherly	99 leagues.

Heights.

The Iſland Uſe in	46 degr. 44 min.
The north-poynt of Oleron in	46 degr. 10 min.

How theſe Lands doe ſhew themſelves at Sea.



Heys, being ſ. e and by ſ. from you, that a man may ſee it from the Campagne, ſheweth of the Maſſe thus.



Heys, being northeaſt from you, ſheweth thus.

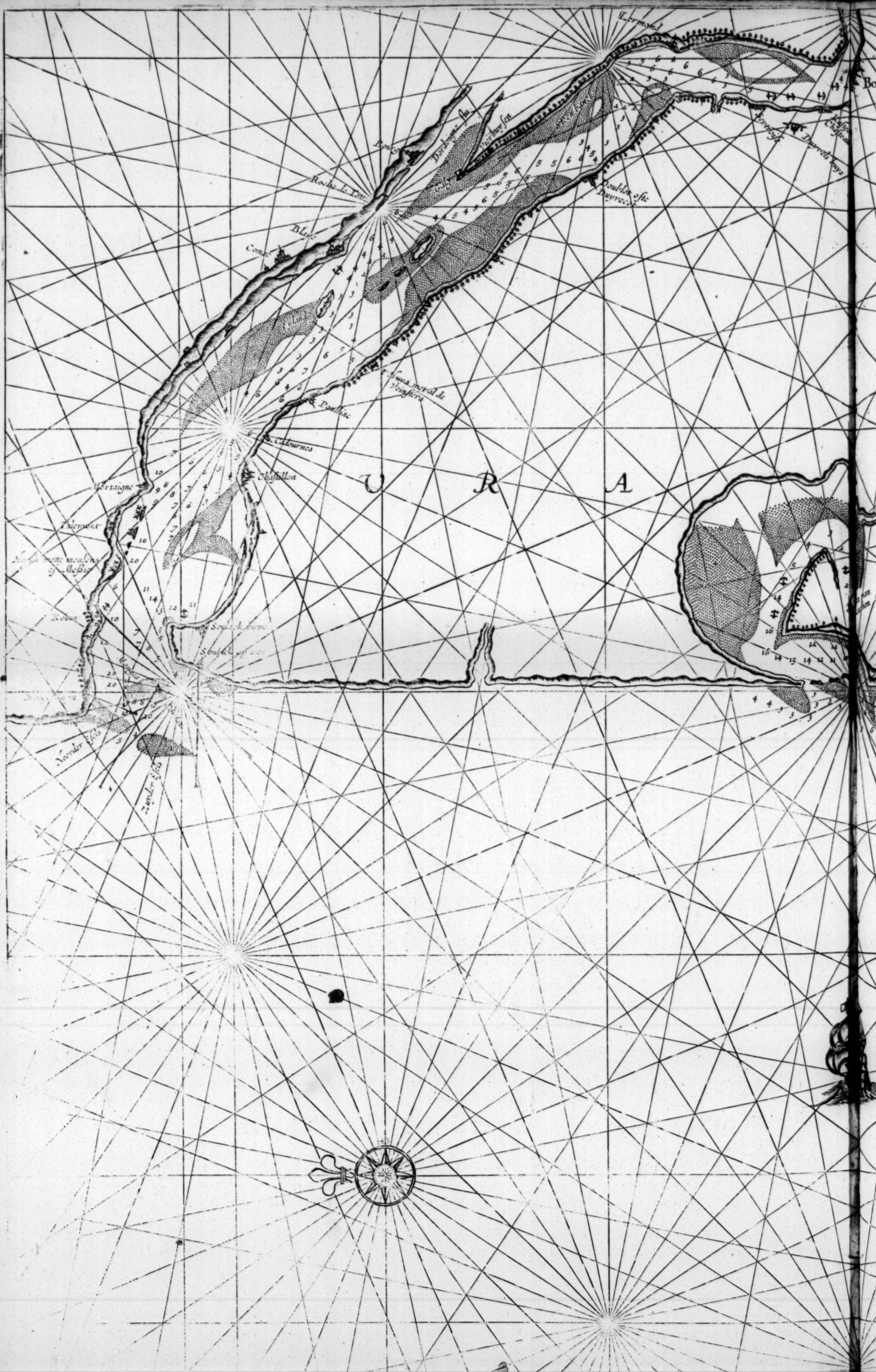


Thus ſheweth the Iſland Uſe, or Heys, when you ſayle alongſt by it, being two leagues off from it.



Heys, being e. ſ. e. from you, & that a man may ſee the Tower from the Campagne, ſheweth thus, & you are then upon 31 fathom depth.

Olone


Terminal
Roche-le-Tour
Blanc
Conet
Eclams
Dorthuysen
Dorthuysen sle.
Gulde
Doublen esle
Duynen
Dunes de Keyn
Dunes de Keyn
Dorthuysen
Dorthuysen sle.
Dorthuysen
Dorthuysen sle.
Dorthuysen
Dorthuysen sle.

Duytſche mylen 15 in een graet

Spaenſche mylen 17½ in een graet

Eng. en Fra. mylen 20 in een graet

Caarte
vande Rivier van
BOVRDEAVX
tot aen Bayone, ende voorts
aen Gataria.

Bourdeaux

Bayone

S. Ian de Luz

S. Anna

Pinas de S. Anna

Fontarrania

S. Sebaſtiaen

Orio

Coſte rede

Caribert

N C R y C K

B A S C A L A.

21

Olone.



Thus sheweth the land of Poictou betwixt Heys and the Islands of S. Martens, when you sayle alongst by it foure leagues a seaboard the Land.



This Coast lyeth south south-east.

Thus sheweth the west-end of the Island of S. Martens.



This belongeth to the former figure from the west-end of S. Martens Island, and sheweth it selfe thus, when the steeple is east and by south from you 3 or 4 leagues of, the coast lyeth here east southeast and w. n. w.

Lafos de Loys. S. Marten. Abbay. S. John.



When S. Martens Island is north & by east from you it sheweth it selfe thus.

When the Tower of the Island S. Marten is e. s. e. 3 leagues from you, then the land sheweth thus.

When men sayle out or in at Porthus, S. Martens Island sheweth it selfe in this forme.

S Martens.



Thus sheweth the south-side of S. Martens Island, when the Tower or west-end is north, and the east-end northeast 3 or 4 leagues from you.



The west poynt of Oleron, or Olderdon, sheweth it selfe thus, when it is east from you two great leagues. There abouts it is twenty fathom deepe.

Down. Downy-land.



Olderdon or Oleron sheweth thus, when as you have the trees north by the Tower, which is then southeast from you.



When you are before Porthus, about two or 3 leagues from land, then doth Oleron and Olderdon arisa in this forme.

The land betwixt Olderdon and the River of Bourdeaux sheweth (when men sayle alongst by it) as is pourtrayed in these 5 following figures, the letters of one sort belongh one to the other, as AA, BB, CC, DD.

The Island Olderdon.



Sales.



Thus sheweth Sales, when it is east & by north from you, being about a league without the land.



High sand-hill.



Cordan.



The third Demonſtration,

Which Contained

The Deſcription, of the River of Bordeaux to S. Sebaſtiaen or Conincx-Reede.

FRom the Band or Crage of Oleron to the Tower of Cordan, or the Pole-head, or the mouth of the River of Bordeaux, called the Garrone, the land lyeth s. s. e. and s. & by east 13 leagues.

To the northwards of the mouth of the River of Bordeaux, lye five or six high white Sand-hills, but to the southwards of it, it is somewhat low land, blake little Sand-hilles, being growne with spiry grasse.

From the tower of Cordan of to the northwards towards the high Sand-hills, which lye upon the north-land, lyeth a sand-bancke, called the Piper, men may sound along by it on the west-side in 7 fathom, but upon the north-end it is very steepe, and not farre of it is 20 fathom deep. Piper.

From the north-poynt of the River runneth of to the southwards, a sand called the norther Asses, and to the Norther & southet Asses.

ſouthwards of it lyeth another ſand, called the ſouther Aſſes, throug betwixt them both, & alſo alongſt to the ſouthwards of them, men ſayle in to the River.

If you will ſayle into the River comming from the northwards, then you may run alongſt by the ſhoale in 12 and 13 fathom, untill that the Tower of Cordan ſtand ſ. e. and by eaſt from you, runne then rigt in with it, throug betwixt the norther and ſouther Aſſes, untill that the high white ſandhil upon the north-poynt of the River ſtand n. n. e. from you, men may ſo (comming from the northwards) runne in alſo about by the norther Aſſes, by your lead, untill that the Tower come be ſ.ſ.e. and ſ.e. and by ſouth from you, then goe towards the Tower, & when the foreſayd hig ſand-hill come to be n. n. e. or n. e. & by north from you, ſayle then rigt in with it until that you have the ſounding of the land, run then in alongſt by it, towards Meſſie, that is the poynt where all the Mils ſtand. When you ſhall ſayle thus towards the hig hill, and that the Tower of Soulack commet a great fathom to the north-
Royan. wards of the Tower of Cordan, & the little Mill of Royan, then are you alſo paſt the Piper, & may run in rigt eaſt without feare towards Royan, but you muſt reckon well your tyde, for the flood fallet thwart over the Aſſes towards the Tower of Cordan, and the ebbe in the contrary.

In this foreſayd channell through betwixt the Aſſes remainet at low water 3 fathom water upon the ſhoals.

For to ſayl into the River alongſt to the ſouthwards of the Aſſes, comming from the northwards, (that is, the beſt channell) you muſt do thus: Bring the Tower of Soulacke eaſt from you, or ſomewhat more northerly, & ſayle in ſo rigt with it untill the tower of Cordan be north & by caſt, & n. n. e. from you, Royan ſhall then ſtand n. e. from you, or elſe if you come from the ſouthwards, then bring the tower of Cordan north & by eaſt, and n. n.e. from you, & ſayle in ſo right with it untill Soulack come to be caſt from you, Royan ſhall then ſtand n.e. from you, ſayle then rigt towards it, & comming near it, ſayle to the poynt of Meſſie.

When you are now within the Rivers mouth, and come right againſt the poynt of Meſſie, that is the poynt where the Mills ſtand upon, then edge over towards the broken
Chaſtil- Caſtle, called Chaſtillion, ſ. e. & by ſouth, that is 8 leagues
lion. from Meſſie, and then forth in alonghſt by the ſouth-land,
Pou- ſ. e. in unto Pouliack, which is two great leagues.
liak. In the fareway betwixt the Piper & the poynt with the Mills, or Meſſie, it is 10, 11 and 12 fathom deepe, but out of the fareway, eithet on the nort-ſide, or ſouth-ſide, it is ſhoaly, to wit, 5, 6, 7 and 8 fathom, you muſt runne alongſt cloſe by the poynt of Meſſie, there is 22 fathom deep.

When as that Royan commeth to the weſt-point, where upon the Mills ſtand keep it ſo ſtanding, & go away ſ.e. & by ſouth towards Chaſtillion, it is in thit fareway almoſt all alongſt 5 fathom deep, but comming near the north or ſouth-ſide, it is ſhoaly, & at the north-ſide it is full of ſands where alſo men may well ſayle throug that are aquainted.

Pou- From Chaſtillion to Pouliack it is 2 great leagues ſouth-
liak. eaſt, the courſe is as before is ſayd, and it is there deep 4, 5, 6 and 7 fathom. Over againſt Pouliack in the midſt of the River lyeth a little Iſlands to the eaſtwards, men muſt runne about it, right in with Bloy, but the men muſt goe over with tyde, for it is there at low water but a little more then one fathom deep.

When you are before Pouliack, and will ſayle to Bloye, then let the water firſt flow an houre, and then you may well goe over with a ſhip that draweth nine or ten foote water. The markes for to ſayle alongſt in the deepeſt water of this reach, are theſe: ſtandeth a Mill halfe wayes betwixt Bloye and Rocktaw, keepe that without the new wall of Bloye, and then you ſhall run in the deepeſt of the Channell.

Bloye. Before Bloye it is againe three or foure fathom deepe, runn then alonghſt by the north-land in tree, foure, & five fathom. When you come before the River which lyeth up to the eaſtwards, called Dordoigne, then ſayle firſt right with the middeſt of the ſecond Iſland, and leave it on the ſtarboard-ſide, and go indifferent neare alongſt by it, untill that you be over againſt or paſt the Gallowes, which ſtandeth upon the eaſt-poynt of the River: and then againe alonghſt, by the north-land unto the foure little houſes. From thence you muſt edge over to the high tower of Dublot or Pigeonhouſe, coming thwart of it you muſt preſently edge over againſt to the eaſt-ſide, to the hight neare Lermond; in that edging over, you ſhall runne through betwixt a ſtone banke on the larboard-ſide, and a ſhoale ſand-plate on the ſtarboard-ſide, over a banke called the Pace, which is the ſhoalieſt of all the River, there remainet at low water a little leſſe then a fathom. Being come over The
the Pace to the eaſt-ſide, goe them in alongſt by the eaſt Pace.
ſhoare, untill you be paſt Lermond, then ſayle againe over to the weſt-ſide, right with the houſes of Charterhouſe, and then in all alengſt by the weſt ſhoare, untill you come before the towne of Bordeaux, in that crooked reach betwixt Lermond and Charterhouſe it is 5, 6 and 7 fathom deep, and before the town 4 and 5 fathom.

When men will ſayle out of the river of Bourdeaux, they muſt ſtay at Royan untill they have good weather, and a fore-ebbe to run out with: in running out, keepe the high ſand-hill n. n. e. from you, ſo long untill that the tower of Cordan be ſoutheaſt and by eaſt from you, then you may ſayle out throug the Aſſes northweſt and by weſt into ſea.

From Cordan, or the river of Bourdeaux, unto Arcachon, the coſt lyeth ſouth & north twenty leagues, it is all low ſandy land, betwixt them both lyeth a tyde-haven called Anchiſes, men may go in there well at high water with great ſhips.

Before the haven of Arcachon, or Arcaſon, lye three Arca-
ſhoals, men may ſayle into the northwards of them, and ſon.
alſo into the ſouthwards of them: the norther entry goeth in betwixt the norrh-poynt and the northermoſt ſhoale, but it is narrow and not deep. The ſouther entry lyeth to the ſouthwards of all the ſhoals by the ſouther-poynt, in betwixt two ſhorly ſand-banckes, where of the one lyeth of from the ſouthermoſt ſhoale, and the other from the ſouth-poynt of the maine land, ſ.w. & by weſt in to the ſea. The land to the northwards of this haven is altogether ſomewhat low ſandy land without trees, but to the ſouthwards of it they are all ſomewhat high ſand-hills without trees alſo, but comming before the havens mouth, you ſhall ſee within in the land many trees. When you come out of the ſea either from the northwards or the ſouthwards, neare about this havens mouth, you ſhall caſily aſpy the foreſayd bankes on both ſides of the ſouther entry, by the breaking of the ſea, and you may borrow of them by your lead, as neare as you pleaſe, they are very kleane and flat. Upon the ſand hills within the haven mouth, ſtand 2 great For to
high maſts: If you wil ſayle in there, then bring the 2 Maſts ſayl in
one in the other, and then they ſhall ſtand n. e. and by e. to the
from you, keepe them one in the other, & ſayle in ſo right Haven
with them, and you ſhall ſo ſayle in betwixt the 2 foreſayd of Ar-
banckes, & at low water you ſhall not finde leſſe then 2 fa- caſon.
thom water, but at high water you ſhall have 5 & a halfe, & 6 fathom water, go in ſo upon the markes, untill you come within the ſhoals, and to the end of the ſhoale ſand on the larboard-ſide. Being gotten in within it, you muſt luffe up about by it, & goe then on n. untill you come to the poynt, which you ſhall ſee on the ſtarboard-ſide, but give that a birth, becauſe there runneth of a tayle, there is in that reach no leſſe then 10, 11 or 12 fathom deep. Being come about that poynt, you may then ſayle in cloſe alongſt by the land on the ſtarboard-ſide, which lyeth eaſt ſoutheaſt, or you may anchor there in 16, 15, 12 and 10 fathom, or further in about the ſecond poynt, in 2 and 3 fathom. Over againſt the firſt poynt, on the north-ſide, it falleth very far dry, a great wayes within.

From Arcaſon to Bayone, the coaſt lyet ſouth & north Bayo-
ſixteen or ſeventeen leagues. The Rivers mouth of Bayone ne.
lyeth in betwixt two plaine ſtrands e. ſ. e. and eaſt and by ſouth, and ſometimes more eaſterly or northerly, by reaſon of the ſhiftingh & altering of the ſands before the Rivers mouth. Upon the land on the ſouth-ſide of the channell, ſtand 2 maſts, theſe you muſt keepe one in the other, or the innermoſt a little to the northwards of the outermoſt, and run ſo in over the Barre or ſhoalieſt place, untill you comme againſt the ſouth-poynt, & then in alongſt by it. Upon the fore ſayd Barre is at high water and ſpring-

tyde,

tyde, at leaſt three fathom, with an ordinary tyde two fathom and a halfe, but at low water no more then 3 foot water. When y ou come about the poynt, you muſt ſayle up to the ſouthwards, keeping about the middle of the channell alongſt the river, or rather neareſt the weſt-ſide, for to avoyde ſome foule ground and shoale, that lye on the eaſtſide, & anchor before the Town in 4, 5 or 6 fathom. This Bar & this River of Pilots water.

A little within this Barre on the n. ſide of the River lyeth up to the northwards, a great water within, of 7 leagues long, and falleth out into Sea by Cabritton. Alongſt that great water the ships were wont to saile up to Bayone, but it is now upon the ſ. end at the river of Bayone, almoſt altogether paled to, ſo that there can but ſmall barckes goe throug, for to keepe the better the Barre of Bayone deepe with ſcowring throug of the water.

S. John de Luz. From the Barre of Bayone to S. John de Luz, the courſe is ſ. and by w. 4 leagues, there is a fayre Bay, where men may ryde in 5, 9, 7 or 8 fathom, according as they will ley farre in, cleane ſandy ground, at the end of the Bay is a little tyde-haven, where upon lyeth the Towne on the weſt-ſide. At high water, and with an ordinary tyde, there commeth 9 foote, but with a ſpring 12 foote water, at low water it falleth altogether dry, ſo that men may goe over there with drie feete. A little within the weſt-poynt of the Bay is alſo a little Dock, where there is a foot water more then in the foreſayd tyde-haven, but it falleth alſo dry at low water.

This Bay is very good to know by theſe marks that here after are written: It lyeth right in the Bight, to the eaſtwardes of it lyeth the land north and by eaſt towards Bayone, and to the weſtwardes of it the land falleth away ſ. w. and by w. and ſ. w. towards Fonteravia. Upon the eaſt-poynt of the Bay ſtandeth a white Firetower, which men may ſee farre of, eſpecially when the Sonne shinneth upon it, then it shinneth very white more then the other land. Upon the weſt-poynt ſtandeth a flat white houſe a little wayes upon the high land, to the weſtwardes of the Bay it is upon the Sea ſide gray and blewish land. Alſo the high hill of S. John de Luz, it a good marke for to know this Bay, which remaineth in ſayling in, lying ſomewhat to the eaſtwardes, or on larboard ſide. This foreſayd hill of S. John de Luz sheweth it ſelfe out it height above all other hilles thereabouts, and thereby is very good to be knowne, above upon the top it is ſomewhat flat, as is demonſtrated in the riſing of the lands. Upon this foreſayd hill ſtandeth a Chappell, from whence men may ſee into foure Kingdomes: Franke, Spaine, Navarre, and Arragon.

Pignons of S. Anna. About 2 leagues ſ. w. and ſ. w. and by w. from Saint John de Luz, lye the rocks called the Pignons of S. Anna, not farre from land: a league to the weſtwards of them lyeth the Bay of Fonteravie, being a fayre Bay.

At the w. poynt of the bay lyeth the C. Figure, a hig poynt, upon it ſtandeth a caſtle, and to the ſ. wards of it a little Chappel. At the poynt of this cape lyeth a rock a little wayes from it, but the Sea cannoth runne throug betwixt them, except it be with very hig floods, it breaket a little throug. At the eaſt-ſide of this bay lye two high rocks, and thwart of them lye alſo ſome low roks a good wayes of from the land. For to avoid them you muſt ſayle in by the weſt-poynt for to come into this bay, and being within it, you may anchor in 8 or 9 fathom, but ſo that the foreſayd great rok at the C. Figure ſtand n. n. w. from you, there you lye in faire ſandy ground, and land-lockt for a n. w. winde.

Kroonenbroug. The Kroonenbroug lyeth about halfe wayes betwixt S. John de Luz and this foreſayd Bay of Fonteravia.

Paſſage. A little league to the w. wardes of C. de Figuer, lyeth Paſſage alſo a fayre haven. At the weſt-ſide of the havens mouth, which is very narrow, lyeth a round rock, ſo that it is evill to come in there with an ebbe, but with a flood it is better, without it is very cleane, without any shoale or foule grounds, but onely the foreſayd rounde rocke. The Towne lyeth a little within the haven on the weſt-ſide, where men doe lye before it in 7 fathom.

Two great leagues to the weſtwardes of Paſſage, lyeth S. Sebaſtians, betwixt both is alſo a ſand-bay in a bight, where there goeth up into the land a shoale little River, where come in many Barkes.

The haven of S. Sebaſtians is good for to come into, men doe runne in there betwixt 2 little caſtles, where of the eaſtermoſt is the greateſt, ſtanding upon a high hill. The weſtermoſt is a little ſquare Tower, and lyeth upon a little Iſland, or rock. In the havens mouth being narrow, betwixt the two foreſayd little caſtles, leyeth a rocke, which at low water is 6 fathom deepe, and when it is a ſtorme out of the Sea, it breaketh allwayes thom. Now for to avoyd the foreſayd rocke in comming in, there commeth an Abbey to the eaſtwards of the weſtermoſt Iſland, and a little Towwer. If you keepe them one in the other, then you run into eaſtwards of it.

For to anchor without S. Sebaſtians in the road, you muſt keepe the hig hill which lyeth upon the point op C. Figuer, without the foreſaid eaſtermoſt caſtle, there you may anchor, but if the ſame come to be hidden behind the caſtle or Iſland, then you may not anchor in the road of S. Sebaſtians. When you are come throug the narrow within the rok and the caſtles, then you may anchor at the eaſt-ſide under the great caſtle, there is the beſt road. Within the foreſayd caſtle goeth up a little water, men may goe at low water one foot from the eaſter Caſtle alongſt a high ſtrand upon the mayne land, unto the Towne, which lyeth behinde the foreſayd high hill with the Caſtle, yet the ſtrand at high water is covered; it is a bay, and within before the towne it is deepe 5, 6 and 7 fathom, at the weſt-ſide under the little Iſland, men may not anchor, becauſe it is flat and shoale there.

He that will goe forth from thence into S. Sebaſtians, let him run in, keeping the middle channell, betwixt the two Iſlands, and let him leave the little Iſland where upon the Chappell ſtandeth on the ſtarboard ſide, running in ſo right againſt the firſt or the ſecond wall of the Towne, and anchor there, the boats or shallops shall come aboard of him, and helpe him into the haven betwixt the walles.

A league to the weſtwardes of S. Sebaſtians, lyeth a ſand-bay, where men may anchor ſo deep and ſo shallow as they will.

Of the Tydes and Courſes of the Streames.

Like as on all the coaſtes of France, ſo alſo at the mouth of the River of Bordeaux, maketh high water a ſ. w. and n. e. Moone.

In the Haven of Arcaſon a ſ. w. and by w. and a n. e. and by eaſt Moone maketh high water, but the flood drawes allmoſt an houre longer in then the water flowes.

On all the places, and before all the havens of theſe coaſts, a ſ. w. and n. e. Moon maketh the higheſt water; but within the havens about a poynt later, according as they lye deepe within the land, like as on the coaſts off Britsaigne, Poictou, and Gaſcoigny. Men reckon here alſo no falling or ſetting of the ſtreames. But the ſtreames fall here thwart of and on.

Upon the coaſt of Biſcay wee find no running of ſtreames, but a ſ. w. and n. w. Moone maketh over all the coaſts the higheſt water, and within the Rivers a poynt leſſe.

Of the Depths.

The land againſt the River of Bourdeaux men may ſee from the poop in 30 fathom and the Tower off Cordan in 27 fathom.

Betwixt Arcaſon, and S. John de Luz men may ſee the land in 30 fathom, when about Bayone, they shall ſee Cabritton, Bayone, Bedert, and Saint John de Luz, allmoſt all flat Towers.

Being before Paſſage, men may ſee alſo the poynt C. Figuer, and S. Sebaſtiaens, the land lyeth in there with a great Bay.

About C. de Figuer lyeth a hig hill, which at the ſouthweſt-ende is very ſteepe, and goeth very long ſloping down towards the north.

When men are before S. Sebaſtiaens 7 or 8 leagues without the land, then it riſeth ſomewhat long, and at the weſt-ende ſteep and hollow, but when men come cloſe by the land, then it is very high and ſteepe.

When men are 8 leagues without S. Sebaſtians, then may they ſee the eaſtermoſt or greateſt caſtle upon the high hill, and alſo the little Iſland to the weſtwards of it.

Courſes and Diſtances.

From Cordan to Arcaſon, ſouth	20 leagues
From Arcaſon to Bayons ſ.	16 or 17 leagues
From the tower of Cordan to C. de Pinas, w. ſ. w. ſomewat ſoutherly	75 le.
From Bayone to S. John de Luz ſ. and by w.	4 leagues
From S. John de Luz to the Pignons of S. Anna, ſ. w. and by w.	2 leagues
From S. John de Luz to S. Sebaſtiaens, w.	8 leagues
From S. Sebaſtians to Gateria	8 leagues
From Bayone to the Seames n. w. ſomewhat weſterly	102 leagues
From S. Sabaſtians to Bell-Iſle n. n. w. ſomewhat northerly	75 leagues
From S. Sebaſtians to the Seames n. w. and by n.	102 leagues

The courſes and diſtances of the places ont from the other is declared in the diſcription.

Heights.

The Tower of Cordan lyeth in	45 degr. 36 min.
Arcaſon in	44 degr. 40 min.
Bayone lyeth in	43 degr. 45 min.

Hovv theſe Lands doe shevv themſelves at Sea.



Thus sheweth the land about Arcaſon when it is from you eaſt-ſoutheaſt neare two miles.



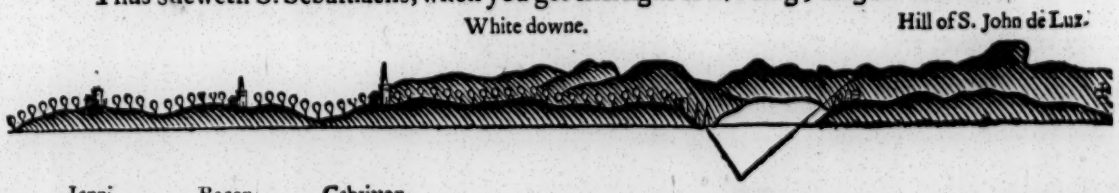
Thus appeareth Arcaſon with it is northeaſt and by eaſt about two miles.



Thus sheweth the land about the Bight of S. John de Luz, of from Cabritton untill paſt S. Sebaſtians.



Thus sheweth S. Sebaſtiaens, when you get firſt fight of it, being 7 leagues of from it.





The foreſayd Iſland about the bight of S. John de Luz from the northwards of Cabritton untill paſt Fonteravia, sheweth thus, as is demonſtrated in theſe two figures, when you are before the Barre of Bayone.



When the hill of S. John de Luz is ſouth from you 5 leagues, then the land to the eaſtwards of it untill paſt S. Sebaſtiaens, sheweth as is here above pourtrayed in theſe two figures, the BB, and CC, belong one to the other.



Thus sheweth the land about S. Sebaſtiaen when it is 5 leagues from you.



Paſſage and S. Sebaſtiaens, being ſouth ſouthweſt from you, sheweth thus.

The fourth Demonſtration,

In which

The Coaſt of Biſcaye, from Coninck-Reede to the Iſland Saint Cypriaen, are delineated.

Gateria. FRom S. Sebaſtiaens to C. de Martinchaco, the courſe is w. n. w. 13 leagues. Betwixt them both lye the roades Gateria & Deva.

Gateria lyeth from S. Sebaſtians w. & by n. & w. n. w. diſtant 7 leagues, being a fayre round ſand-bay, where is good ryding for weſterly winds, men lye there within the weſt-poynt right before the Towne in faire ſandy-ground, a north winde commeth right from the poynt. This bay is commonly called Kings-haven.

Alongſt the coaſt of Biſcay, betwixt S. John de Luz and Gateria, is every where clean ground and good anchoring in 20 fathom.

From Gateria to Deva it is a league & halfe to the weſtwardes: which is an off-water that commeth out off the high land.

Two leagues to the weſtwardes lyeth the poynt of Cape Martinchaco.

About 13 leagues w. n. w. from S. Sebaſtians, lyeth the C. de Martinchaco, a little to the weſtwardes of it is a good tyde-haven, where in lyeth a little Towne about a league within the land, upon a River which commeth out of the high land. A little to the weſtwards of C. de Martinchaco, lyeth a great Rock faſt to the land, and a little to the weſtwardes of the ſame another: upon the poynt called Punte de Avillanes. Southweſt & by w. from Martinchaco lyeth

Barmea. the haven of Barmea, a faire great bay, the eaſter-poynt is foule, therefore men muſt give it a good birth, and run in alongſt by the weſt-ſide, when they are gotten in it is large enoug, there they may anchor where they will.

Placentia To the weſtwardes of Barmea, lyeth alſo Placentia upon a little River, the towne lyeth a little within the land. There are all tyde-havens.

From Cape de Martinchaco to Bilbao, (where betwixt lye the foreſayd havens of Barmea & Placentia) it is ſouth ſouthweſt & ſ. w. & by ſouth 6 leagues.

From Placentia to Bilbao it is 2 leagues weſt ſouthweſt and weſt and by ſouth. Bilbao lyeth upon a great River alongſt which there commeth of much Iron, it is a good haven, but it lyeth not farre in, by reaſon of the Barre, which lyeth thwart over the haven, where men muſt goe in with high water.

At the eaſt-poynt of Bilbao shooteth of a Riffe, which Bilbao. men muſt avoyd, there lye alſo ſome rockes under water. It is a high ſteepe poynt, and is white to ſee to.

Within the riffe that runneth off from the poynt, men may anchor in 7 & 8 fathom, betwixt the poynt & the Piere on the eaſt-ſide, there the Pilots come of which bring up the ſhippes, and there men lye land-lockt for a northweſt winde. From this foreſayd poynt or road to the Barre or River-mouth of Bilbao, it is a league and a halfe ſouth & by weſt, which lyeth in by the weſt-land, there ſtand 5 or 6 Houſes upon the weſt-land, when the two weſtermoſt-houſes come one in the other, or when you may ſee throug the two eaſtermoſts houſes, which ſtand within in the land, then are you upon the Barre or ſhoale, then goe in ſouth and ſouth by eaſt right with the caſtle Portugaletto, & alongſt cloſe by the Caſtle, and anchor a little within the Caſtle for a weſt winde. But when you are before the Barre, the Pilots come off and bring you to the Town.

When you lye without in the Bay, then you may ſee Mount Antony lye weſt and by north from you.

From the poynt of Bilbao to Caſtro, the courſe is weſt Caſtro. 5 leagues, that is a good haven for 6, 7 & 8 fathom depth. The narrow of the haven lyeth in ſouth, in 10 fathom. But further in the River towards the Towne, it is not deeper then 3 or 4 fathom.

From

Cust van
BISCAYEN
tusschen Gatarya en
Rio de Sella.
't Amsterdam.
By Iacob Theunisz op
't water inde
Lootsman.

B J S C

Bilbao
Porto galete
Barse
M. Madin
castro
Laredo
Orinnjan
C. Ledgo
S And
La
Placentia
Gatarya ofte
Comax haven
Bara
C de Machicaco
M. S. Antony

1 2 3 4 5 6 7
Duytsche mylen 15 in een graet
1 2 3 4 5 6 7 8
Spaensche mylen 17½ in een graet
1 2 3 4 5 6 7 8 9
Eng. en Fra. mylen 20 in een graet

B I S
Ca
Luarca
t Lant van
Artedo
Artedo
Aviles
C. de Aviles
Villa Viciosa
Santoen
Gyon
Torres
C. de Pinas

Duytsche mylen 15 in een graet
Spaensche mylen 17½ in een graet
Eng. en Fra. mylen 20 in een graet

A Y A

Rio de Sella
S. Vincente
Liarkes
S. Andero
L. alata
Espinosa
S. Iusta
St. Martin
Scerrallis
S. Adans

C Castrapol
Ribadeus
A Y A

Cust van BISCAYEN Tusschen Villa vicioça ende C. de Ortegael.

Nostra Singnora de los pielez
C. de Brib
B. S. Cyrian
Viverus
I. S. Cyprian
S. Marcus
Karyus
Caseebam Ortegael
C de Ortegael

W 22

M.S. Antoni. From Bilboa to the hill of S. Anthonies, it is w. & by n. 9 or 10 leagues. From Caſtro to Laredo, the courſe is weſt diſtant 5 leagues, upon the weſt-ſide lyeth the foreſayd hill of S. Anthonies, which is a high hill, men may ſayle in cloſe alongſt by it untill they come about the eaſt-poynt; within it is wide & broad, & a fit haven for great ſhippes, there men may anchor in 7 or 8 fathom. To the eaſtwards over againſt the hill of S. Antonies, in the middeſt of the ſound, lyet a rane of rocks under water, where men may ſayle in about it on both-ſides, men may eaſily eſpy them, becauſe it doth alwayes brake upon them, within them is the road for ordinary ships, a little before the haven, which is built with a wall. But the great shippes, lye a little further off in 6 or 7 fathom depth. On the ſouth-ſide of the haven is a little tyd-haven, from the ſame there commeth a great riffe shoothing of from the eaſt-ſide, towards the hill off S. Antonies; within it is 2 fathom water right before the village, from the village commeth a tayld of ſand, lyingh thwart out, with in it at low water it is a fathom deepe. In the middeſt of the ſound it is 9 fathom, & at the poynt of Saint Anthonies 20 fathom deep.

Sunc-ken Rocks.

C. Keſ-go. From S. Anthonies hill to Cape de Keſgo it is weſt and weſt and by ſouth two leagues, that is a great Cape lying to the eaſtwards of S. Andero: thwart of it is clean ground.

S. An-dero. From Cape de Keſgo to the weſt-poynt of S. Andero, it is w. & by ſouth 5 leagues, a little to the ſouthwards of the poynt of S. Andero, upon the eaſt-poynt of Saldines, is a ſand-bay, there is good anchoring in ten fathom.

From C. de Keſgo to the haven of S. Andero, the courſe is w. ſ. w. diſtant two great leagues. S. Andero lyet within a bay, there lyeth an Iſland before the haven, men may go about it on both-ſides, it is deep 8 & 9 fathom but to the ſouthwards of the Iſland it is deep 5, 6 & 7 fathom, according as men will come near to the ſtrand, the haven lyeth in firſt w. n. w. The Iſland lyeth a great league within the bay: from the eaſt-poynt of the haven, unto the weſt-poynt of the land, it is ſ. & n. about a great league. S. Anthonis and the weſt-poynt of S. Andero, lye one from the other eaſt and weſt, about 5 leagues.

Laredo. For to know the land when you fall with the land about Laredo, you muſt know that on the weſt-ſide of the haven of Laredo, lyeth the hill of S. Antonis, which is a very high hill, which men may ſee very farre from the eaſt & the weſt & a little above the towne of Laredo, men may ſee alſo a sharpe hill like the poynt of a Diamond, or the poynt of a 2 hand ſword, further it is about Laredo very high double land, 2, 3, and at ſome places 4 double. The hill of S. Anthonies doth ariſe in two high hommockes, with a valley or ſaddle in the middeſt, betwixt them both within in the land lye alſo two high hills with sharpe topps. Above and to the weſtwards of S. Antonies, lyeth a piece of land judged to bee about 2 leagues long, which lyeth in 5 hills, the eaſtermoſt is the loweſt, & riſe all higher towards the weſt, ſo that at the laſt to the weſtermoſt is the higheſt, which goeth off ſomewhat flat downward towards the weſt. Betwixt that eaſtermoſt hill and S. Antonies, lyeth a bay about a league long, called the bay of Port, men cannot ſee theſe foreſayd hills when they are cloſe by the land, but they muſt be a good wayes off to ſeawardes.

Bay of Port.

To the weſtwardes of theſe foreſayd hills lyeth another piece of land, which at the eaſt-end is higheſt, and goeth ſloping off towardes the weſt-end, allmoſt like Portland. Betwixt that poynt and the five foreſayd hills, lyeth an other ſand bay, whereabouts ſtand ſome little houſes, but by it lye many rockes & fowle ground. Thereabouts within the land lyeth the foreſayd high round sharpe hill, in forme like the poynt of a ſword.

S. Andero hath but few hills that are eaſy to be knowne, but when men are before the haven, then they shall ſee to the eaſtwards of the towne, a Caſtro upon a high hill, in forme like a Sugarloafe, or a hay-cock, & to the eaſtwards of it is much double land of 2 and 3 heights double. But when men come about the Cape de Keſgo, then they shall ſee preſently the caſtle upon the weſt land.

From S. Andero ro Cape de Pinas, the courſe is weſt or a little more northerly 31 or 32 leagues. Betwixt them both lye theſe havens following.

S. Martin. Sette-villes. S. Vin-cent. First the haven of S. Mattin, or Settevilles, a tyde haven lying eaſt and weſt four leagues from Saint Andero.

From thence to S. Vincent alſo a tyde-haven is 5 leagues diſtant: the haven goeth in one the eaſt-ſide; from the weſt-ſide commeth shootingh of a little riffe, & in the midſt of the havens mouth lyeth a little Iſland, where men may goe in on both-ſides.

Lhan-ces From S. Vincent to Lhances, a tyde-haven, the courſe is weſt 2 or 3 leagues. Upon the weſt-ſide of the haven ſtandeth a little Church: and a little witthin the haven, lyeth a middle plate or ſand, men muſt go in on the weſt-ſide of the ſand: theſe are all narrow havens, & but little knowne.

Rio de Sella. From Lhances to Rio de Sella, the courſe is weſt 5 or 6 leagues: betwixt them both lye alonghſt the coaſt many rocks & within them many ſand-bayes, where men for need might ſave ships.

He that will goo into Rio de Sella muſt look out for a maſt which ſtands upon the eaſt land cloſe by the ſame men muſt go in, the weſt-ſide is within fowle, within the maſt men muſt anchor before the village: this is alſo a tydehaven.

Villa Vicioſa. From Rio de Sella to Villa Vicioſa it is w. 9 leagues, this is alſo a tyde-haven, but is clean, the havens mouth lyeth in ſ. ſ. e. and ſ. e. and by ſ. cloſe alongſt by w. poynt of the land, the eaſt-ſide is fowle unto the middeſt of the haven there lyeth a rock with a plate right in the midſt of the haven, which at low water fall dry: ſo ſoon as men are within that rock, they muſt anchor with in the rock; upon the weſt-ſide lyeth the towne, men may alſo ſayle up it, and anchor there in the shoale water.

Sanſon. Six leagues to the weſtwards of Villa Vicioſa lyeth the out-poynt of Sanſon, to the eaſtwards of it lyeth a little Iſland, where upon ſtandeth a little Tower. Betwixt Sanſon and the foreſayd little Iſland is a good road in 6 or 7 fathom.

At the Weſt-ſide of Sanſon is alſo a good road right before the little haven of Sanſon in 6 or 7 fathom.

Gion. To the weſtwardes of Sanſon lyeth Gion with a Piere or Head that is paled of, under the which the Fiſhermen which dwell there, lay their barkes.

Tores. A great league to the weſtwards of Gion lyeth the bay of Tores, a good road for a ſouthweſt and weſt wind in 8 and 9 fathom. Upon the poynt ſtandeth a high Tower.

C. de Pinas. Three leagues to the weſtwards of Tores lyeth Cape de Pinas, where many rockes lye of to ſeawards, at leaſt a halfe league of, ſome doe ſay that men may ſayle through betwixt the poynt and theſe rockes.

From Cape de Pinas lyeth of a rane of rockes, lying at the leaſt a halfe league into ſea, ſome ſay that men may ſayle through betwixt the poynt and theſe rockes. But a little within or to the weſtwards of the Cape de Pinas, lyeth a great rock, betwixt that rocke and the land men may ſayle through.

Avilles. When men are within the Cape de Pinas then lyeth Avilles 3 leagues from thence ſ. ſ. w. which is a good tyde-haven, where a great ſhippe may well goe in at halfe flood, alſo there is good road before this haven in 6 & 7 fathom.

Fort to ſayle in there, men muſt goe in by the eaſt-land the weſt-land is farre off shoale, there ſtandeth a little Chappell upon the eaſt-land, men muſt ſayle in cloſe by it, and anchor a little wayes within two rockes that lye on the eaſt-ſide, a little within the havens mouth. The towne lyeth a league further up. From the weſt-poynt runneth of a riffe, and lyeth inwards alongſt the haven, towards the town, ſo that it is there very shoale on both ſides. On the weſt-ſide without the haven in the bight, lye 2 great rockes right before the little Church in the Sand-bay; men ſayle round about them, but it is not very cleane: but without the rocks good anchor ground in 7 or 8 fathom, over againſt the little Church that ſtandeth againſt the high land.

Luarca. From Avilles to Luarca is 6 leagues and from Luarca to Ribadeus w. ſ. w. 6 leagues, and from Aviles to Ribadeus ſ. w. and by weſt 12 leagues.

Riba-deus. From the eaſt-poynt of the havens mout of Ribadeus, lyeth of a ledge or riffe of rocks towards the weſt shoare, you may ſound in about it in foure deus. fathom, or 4 fathom and a halfe: or elſe if you keepe the little towne Caſtropoll even without the poynt, ſo ſayle right in with it, then you shall not come too neere the foreſayd ledge, but you shall ſayle far enough alongſt to the weſtwards of it. The weſt poynt sheweth is ſelfe when you come in out of the ſea, like an Iſland; upon it at the north-end ſtandeth a flat tower, allmoſt like the tower in the Groyne, but not ſo great. About thwart of that Tower leyth a ſuncken rocke a little wayen from the land, you muſt look out for it, and take heed of it, when there commeth in any great ſea, you can eaſily eſpye it by the breaking of the ſea upon it, put not with ſmooth water: at the very loweſt water it commeth even with the water. The weſt shoare is fowle and rocky: there runneth off to the ſouthwards of the foreſayd Tower alſo a fowle ledge of riffe of rockes, at leaſt halfe wayes over the havens mouth, and at thereof it you cannot uſe the lead. When you are paſt the ledge or riffe that lyet of from the eaſt shoare you muſt run in about it, and edge in ſomewhat to the eaſt shoare, and ſayle in alongſt by it untill that you are paſt, or come to the end of the foreſayd ledge or riſte of rockes, which lyeth of from the weſt shoare, as ſoone as you shall bee paſtit, you muſt luffe up about it towards the weſt shoare, for to give the eaſt shoare (within the havens mouth) a birth, which is a great wayes within very flat or shoale, but on the weſt-ſide it is deep water. There ſtandeth a little Tower on the weſt shoare a little within the poynt where the riffe lyeth of, which you shall ſee when you are come within the weſt poynt, and run alongſt by the riffe, when you get that little tower weſt or thwart of you, then are you at the end of the riffe, then you muſt ſayle towards that little Tower, untill that you come to the weſt shoare, and run in alongſt by it, untill you come before the Towne, there you muſt lye with an anchor to ſeawards, and with a cable faſt on the rockes.

A little league to the weſtwardes of Ribadeus lyeth a tyde-hayen, he that commeth from the w. alongſt by the shoare thwart of it should ligtly thincke that to bee the haven of Ribadeus, but it is light to diſcerne from it by theſe markes following. On both ſides of this tyde-haven are the coaſts all high land, but on both ſides of the havens mouth of Ribadeus, it is low land.

Alſo

Alſo there lyeth a high sharpe hill & very easy to be knowne, which ariseth out at least 7 or 8 leagues of, upon it lye some heapes of stones appearing like a little houses when that you have that hill s. s. w. from you, sayle in so right with it, then you shall bee with the land right before the Havens-mouth of Ribadeus.

Vive-rus. Northwest from Ribadeus about 8 leagues, lyeth the cabo de Brilo, a little to the Westwards of it lyeth the little Towne Viverus. To the westwardes of the Bay of Cypriaen (where men may anchor in 10 fathom) lye two great high Rockes: w. n. w. from these Rockes about a halfe league lyeth the Island S. Cyprian, right before the haven of Viverus, whereby this haven is easy to be knowne, you may saile about on both sides of this Island into the haven of Viverus, in all alongst in the middle of the channel south & south & by west untill you come before the town, being within, you may anchor where you will either on the east or west-side, it is there shoale water of 5, 6, 7 & 8 fathom, according as you run farre in.

Or the Tydes and Courses of the Streames.

Upon the coasts of Biscay wee find no runnings of streames, but a s. e. and n. w. Moone maketh upon the whole coast the highest water, but within the Rivers a poynt later.

Courses and Distances.

From S. Sebastiaen to Gateria w. and by n.	7 leagues
From Gateria to cape Martinchaco w. & by n.	5 leagues
From cape Martinchaco to Castro, w. s. w.	9 leagues
From cape Martinchaco to M. S. Antony, w. & by s.	13 leagues
From M. S. Antony to S. Andero or Lalata, w. & by s. 4 & a halfe	leagues
From S. Andero to Rio de Sella w. somewhat southerly	16 leagues
From Rio de Sella to cape de Pinas w. & by n.	21 leagues
From cape de Pinas to Avilles s. s. w.	3 leagues
From Luarco to Ribadeus w. s. w.	5 leagues
From Ribadeus to cape de Brilo, n. w.	8 leagues
From cape de Brilo to Isle de S. Cypriaen n. w.	3 leagues
From cape de Pinas to Ribadeus s. w. and by w.	13 leagues
From cape Martinchaco to Arcason, n. e. somewhat easterly	28 leagues
From cape Martinchaco to Use, n. somewhat easterly	60 leagues
From S. Andero to the Seames, n. n. w.	92 leagues
From cape de Pinas to the Tower of Cordan, the course is e. n. e. and n. e. and by east	75 leagues
From C. de Pinas to Porthus or S. Martins Island, n. e. easterly	80 leagues
From cape de Pinas to Bell-Isle, the course is n. n. e.	80 leagues
From cape de Pinas to the Seames, n.	81 leagues
From C. de Pinas to C. de Veilli in Ireland, n. & by w. westerly	170 leagues
From cape de Pinas to Ortegall w. & by n. somewhat westerly	29 leagues

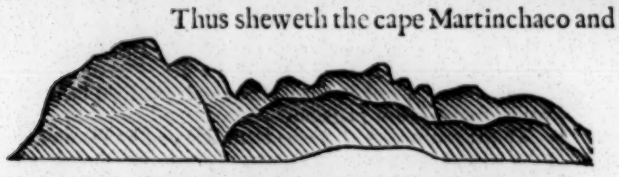
Heights.

Bayone lyeth in	43 degr. 46 min.
The cape Martinchaco lyeth in	42 degr. 46 or 48 min.
The cape de Pinas lyeth in	43 degr. 52 or 53 min.
The Whole-coast of Biskaye betwixt cape de Pinas & Martinchaco lyeth in about	43 degr. & 43. 44 or 45 min.

Hovv theſe Lands doe shevv themſelves at Sea.



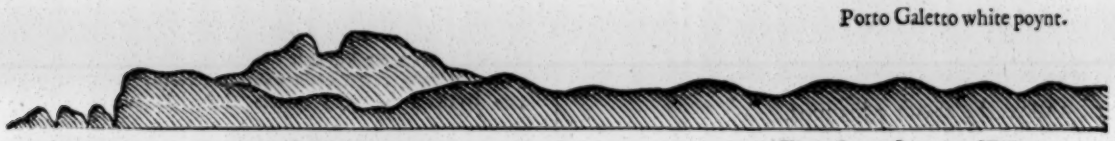
Thus sheweth the cape Martinchaco and the land to the eastwards of it.



To the westwards of Bilbao towards Castro, men shall see a high sharpe hill and sheweth thus towards Castro.



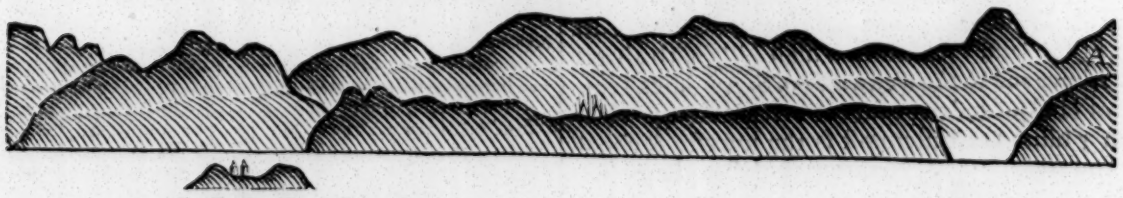
Thus sheweth the land to the eastwards of Bilbao, when men sail there with the land.



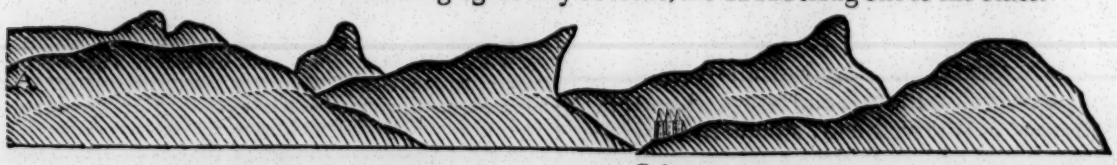
Thus sheweth the land betwixt the cape Martinchaco and Bilbao.



Thus sheweth Bilbao and the land to the westwards of it, when you are thwart of it.



When the sharpe hill over against the haven of Bilbao is south and by west from you, then the land sheweth as in this & the following figure may be seene, the A A belong one to the other.





Thus sheweth the hill of S. Antonio lying at the west-side of Laredo.

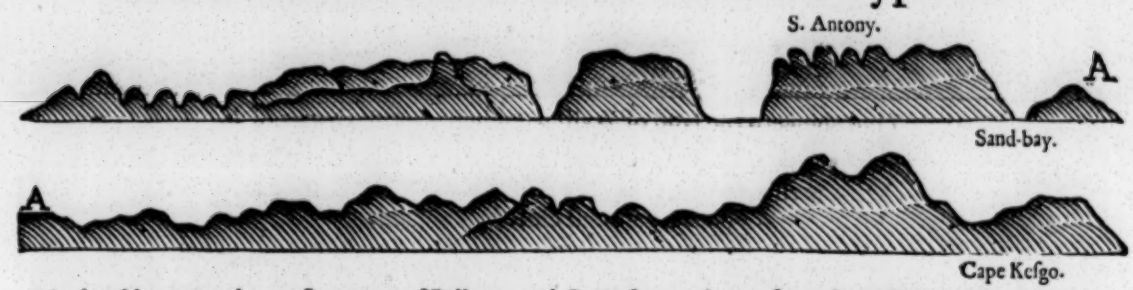


The hill of S. Antonio sheweth thus, when it lyeth s. s. e. from you.



The land to the eastwards of Laredo, being south from you, sheweth thus with a sharpe hill.

S. An-



The land betwixt the weſt-poynt of Bilboa, and C. Keſgo to the weſtwardes of Mount S. Antonio, sheweth at ſea when you ſayle alongſt by it, as is pourtrayed in theſe 2 figures here above.

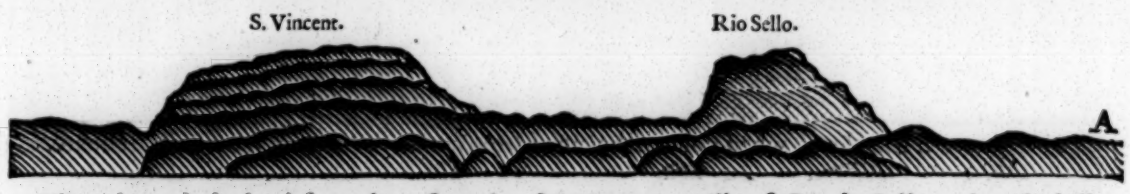


Thus sheweth the land of Biskaye betwixt Laredo and Rio de Sella, when you ſayle alongſt by it.



Thus sheweth the Land from Rio de Sella of, to Cabo de Pinas, when you ſayle alongſt by it.

Theſe foure figures following belong one to the other, the like letters, as A A, BB, CC, one to the other, and is the coaſt from the eaſtwards of C. Vincent to C. de Pinas.



Thus sheweth the land from the eaſtwards of S. Vincent untill paſt Rio de Sella, when the hill with the 3 hills is 4 leagues thwart from you, and Rio de Sella is 4 leagues ſ. w. from you.

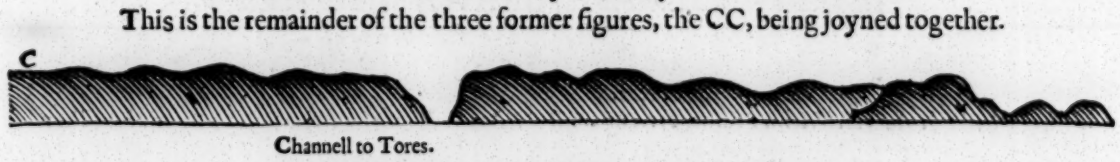


Thus sheweth C. Kesgo, Villa Vicioſa, and the land to the weſtwards of them, when C. Keſgo is weſt 4 leagues, and Villa Vicioſa 4 or 4 leagues ſouth ſouthweſt from you.



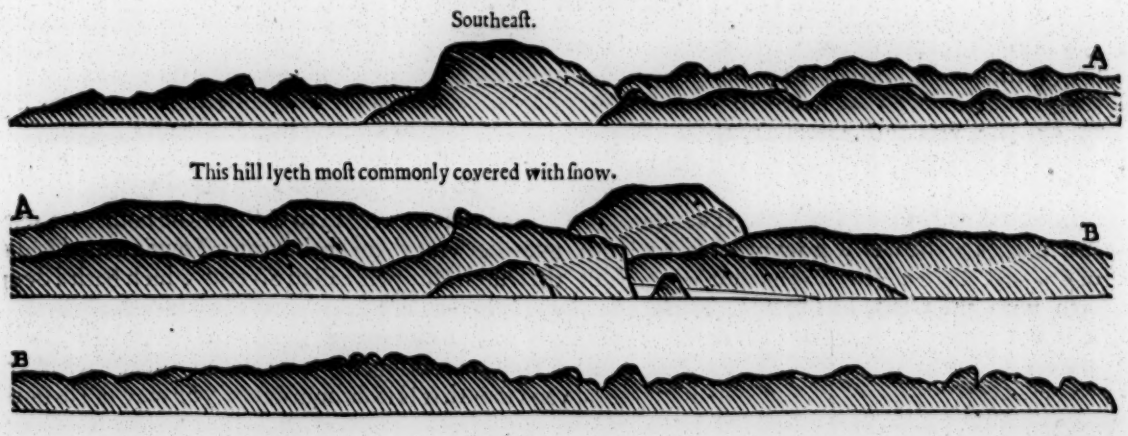
Thus sheweth the land of Biskaye, when you are thwart of Gion.

This is the remainder of the three former figures, the CC, being joyned together.



Thus sheweth the land when you are by Tores.

The three figures following one to the other, the like letters one to the other, and shew the riſing of the land on both ſides of the Cape de Pinas, to wit, when the Cape Pinas is about 4 leagues ſouth, ſomewhat weſterly, and the great hill to the eaſtwards of it is ſoutheaſt from you.



C. Pinas.

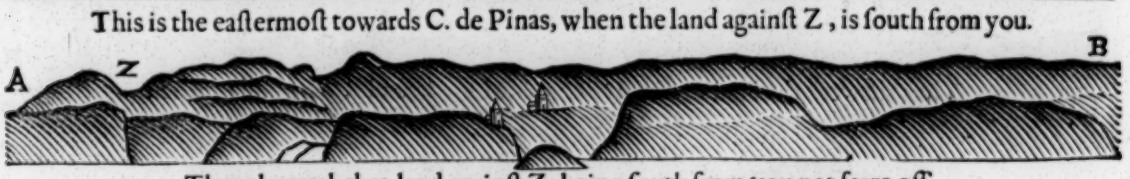


Thus sheweth the land of Avilles, when you are thwart of it.

These three Figures following belong one to the other, at the like Letters one to the other, and shew the rising of the land betwixt C. de Pinas and Ribadeus, when you sayle alongst close by the land.



This is the eastermost towards C. de Pinas, when the land against Z, is south from you.



Thus sheweth that land against Z, being south from you not farre off.



Ribadeus.

Thus sheweth the land betwixt Luarca and Ribadeus.

These two Figures following belong one to the other at the AA, to gether.

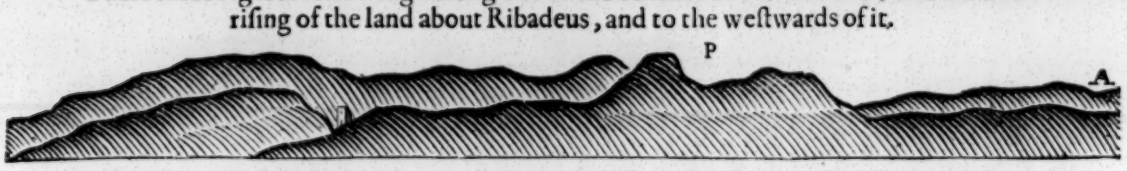


Thus sheweth Ribadeus, when you are thwart of from it about a halfe league from the shoare.



Thus sheweth the land to the westwards of Ribadeus, when the hill by S, is south from you, and followeth to the former Figure.

These three Figures following belong one to the other at A A, and B B, and shew the rising of the land about Ribadeus, and to the westwards of it.



Thus sheweth Ribadeus, when the hill to the westwards of it, marked here with P, is south and by east from you, 4 leagues.



This belongeth to the former, the A A, one to the other.



Thus followeth the two former figures to the westwards of Ribadeus, the B B, one to the other.

The fifth Demonstration,

Which Delineated

The Sea-Coasts of Galliſſia and Portugall, betweene the Iſland of S. Cypriaen, and Camina.

FRom the havens of Viverus or from the Iſland S. Cypriaen to C. de Ortegall, the course is west and by north 9 leagues.

Betwixt both, a league to the westwards of Viverus, lyeth the little Towne of Sint Marcus with a Bay, there men may anchor in 7 or 8 fathom, and ryde for a s. s. w. & west windes.

Two great leagues to the westwardes of S. Marcus lyeth the river of Caryns, there is also good anchoring, & from thence forth unto the Castle of Ortegal; al the coast alongst, it is there every where cleane. From Caryns to Ortegal, the course is n. w. 5 leagues. Ortegall is a great poynt lying out, to the eastwards of it, men may lye landlockt for a n.w. w.s.w. and s. winde, thwart of the castle is the best road, there men may anchor in 8 or 9 fathom, when men come from the east. Ortegall is easy to beknowne, they shall see the castle stand against the hig land.

About a league n.n.w. into Sea from the C. de Ortegall, lyeth a great rane of rocks: betwixt them and the foresayd Cape, men may sayle throug in 10 fathom. C. Ortegall.

From de C. Ortegall to C. Prior, the course is s.w. 10 leagues: betwixt them both lyeth a Towne called Sedaira, by the Dutch Shippers called Siverus, which hath a deepe haven lying in s.e. The n. side of the haven is rocky & fowle, which you must avoyd & run close in by the w. land which is a hig land; alongst by it is 12 fathom deepe, within the havens mouth it is 10 fathom deepe, you may sail in untill you come before the towne, & anchor there in 6 or 7 fathom.

Five

C. Or-
tegall.

C de Ortegal

Sisarga

Ferol

Ponte de Mas

Fontenne

Corunna

I. Cysargas

Munnick

C. de Belem

Coriane

Caerte van

CALISSIEN

Tuschen C. d. Ortegal, C. de Finis terre en Camina.

't Amsterdam

By Iacob Theuniſz. Boeck-verkooper op't wa-
ter inde Loots-man.

S J S S J A.

Ponte vedra

Rondela

Illana

Vigo

Cannas

Camina

Bajona

C. de Phesélis

Porto novo

R. Doco

Cambado

Prongy

S. Thomas

Groye

Blondnes

Monte Carbela

Villa nova

I. Sahre

Clip

Mont. Lauro

Seche

C de Finisterre

Duytſche mylen 15 in een graet

Spaenſche mylen 17½ in een graet

Eng. en Fra. mylen 20 in een graet

W

23

Five leagues to the weſtwardes of Sederia lyeth the C. de Prior, which is a very ragged hill, to ſee to a far of, as if it where full of a people. C. Prior

Three leagues from the Cape de Prior, lyeth the haven of Ferroll: betwixt them both lye 2 little ſand-bayes, the ſouthermoſt (where in ſtand ſome little white houſes) is the greateſt, and lyeth a little to the northwardes of the north-poynt of Ferroll; when you come neere the Baye, the haven beginneth to upon it ſelfe, it lyeth e. n. e. and e. & by n. in, amaids the channell betwixt 2 hig lands: when you come in, you muſt preſently edge up to the northwardes by the north-poynt and anchor there a little to the weſtwardes of the village it is flat and rocky ground.

For to ſayle in to Feroll from the ſouthwards. When you come from the weſt, of from the Groyne, & will ſayle into the haven of Feroll, then goe away from the lits Iſland S. Blaſius north, and north and by weſt, and run a good wayes about, without the ſouth-poynt of Feroll, which is very fowle & rocky untill that you ſee the haven open, goe then yet ſo farre to the northwards of the ſouthwards of the ſouth-poynt, untill that the haven doe shut againe, & run then right in with the foreſayd greateſt ſand-bay, where in ſtand the 2 or 3 little white houſes to the northwards of the haven, untill that you be within the ſouth-poynt, & the fowle grounds which lye of from it; ſayle then right to the north-poynt of the haven, & alongſt by it towards the ſouth-ſide, untill that haven doe open it ſelfe againe, and runne then (as before) alongſt in the middeſt of the channell. This haven is ſo narrow in the comming in, that you may caſt a ſtone upon the land on both ſides, & in that norrow it is 20 fathom deepe. When you are in the havens mouth, you may ſee throug betwixt the Iſland Siſarga, & the maine land to the ſouthwards of it.

For to ſayle in to the Groyne. To ſayle from Feroll to the Groyne, the courſe is ſouth, and ſouth and by weſt 3 leagues, when you come neere the weſt-land, you muſt give it a birth, at leeſt of foure or five Cables lenghts, becauſe it is not very cleane. When you come by the where the Caſtle ſtandeth upon, you ſhall ſee then alſo a little Iſland with a little houſe uponit, you may ſayle alongſt by it within a halfe cables length, and runne about by it up to the weſtwardes, untill you come before the Fisher village, and anchor there in ſixe, ſeven or eight fathom.

From Cape de Prior to the Groyne, the courſe is ſouth and ſouth and by weſt five leagues.

Haven of Bitanze. Eaſt-northeaſt from the foreſayd Iſland where the Caſtle ſtandeth upon, goeth in a Sound ſoutheaſt, five or ſixe leagues within the land, to Bitanze, where you may anchor on the weſt-ſide under a row of rocks in 10 or 12 fathom. alſo you may ſayle ſo deepe in, that you can ſee no ſea.

Ponte de Mas. To the northwards of that Sound, over againſt the poynt of the Groyne, lyeth alſo an other haven or Sound. called Ponte de Mas, on the north-ſide lyeth a row of rockes, where men run alongſt to the ſouthwardes of them: men may alſo ſayle there ſo deepe in, that they can ſee no ſea. A good wayes within lyeth a great bridge over the River.

He that commeth from the weſt of from the Iſland Ciſarga and is bound into the Groyne muſt give the north-poynt, or the weſt-poynt of the Groyne (where the tower ſtandeth) a birth of 4 or 5 cables lenghts, as before is ſayd, which poynt is a rocky and fowle farre from the ſhoare, and run then eaſt ſoutheaſt, and ſoutheaſt about by the poynt, afterwardes ſouth ſoutheaſt unto the little Iſland with the Caſtle and about by it, as is before ſayd.

Iſland Ciſarga. The little Iſland Ciſarga, of the Dutchmen called Ceſarie, is fowle round about, and lyeth from the poynt of the Groyne, due eaſt and weſt diſtant 7 or 8 leagues, from the haven of Feroll weſt and by ſouth, from the C. Prior w. ſ. w. and ſoutheaſt and by weſt, and from the C. de Ortegall ſouthweſt, and ſouthweſt and by weſt 18 or 19 leagues.

Queres. From the Iſland Ciſarga ſouth and by weſt, & ſ. ſ. w. lyeth Queres, a good haven alſo for great ships, the weſt ſhoare is cleane, but the eaſt ſhoare is fowle, therefore men muſt ſayle alonghſt by the weſt ſhoare, when they are betwixt the two lands, then they muſt goe in amaids the channell, unto the poynt, and then run up to the weſtwardes a great halfe league in, and anchor there in ſeven, eight and nine fathom.

From the Iſland Ciſarga ſouthweſt and by weſt, and weſt ſouthweſt 12 leagues, lyeth the eaſt-poynt of Monſie, called Cabo de Bylem, which is a high ſteepe poynt, with many ragged rocks lying of looſe from the land, where of the greateſt, being like a tower, doth shew it ſelfe black, & is called the Munck. Cape de Bylem.

There lyeth alſo a great rane of rockes right before the haven or ſound of Monſie, ſouthweſt and by ſouth from the Munck, at leaſt two or three cables lengths long, but the innermoſt end of it lyeth from the Munck ſouth & by weſt. When men fall with the land of Monſie, it is all double land, about the Cape de Finiſterre lyeth a high white ſand, lying in within the land ſandbay.

Alſo men may ſee comming about the C. de Finiſterre a ragged hill which runneth alongſt ſo farre to the ſouthwards that men may ſee it before the Mores.

Monſie. He that is bound in for Monſie, comming from Ciſarga, muſt goe in cloſe alongſt by the C. de Bylem, or Bellem: this poynt is altogether a ragged high sharpe land of ſteep rocks, as before is ſayd, and when you are by that poynt, then you muſt keep the Cape de Coraine a shipps length without de C. de Koto, ſo long untill that the Church of S. Maria come without the poynt of Monſie; run then in at the eaſter channell ſouth ſoutheaſt upon theſe markes, untill you be paſt the Church, then you shall ſee a row of rockes, run in behinde or within them, and anchor there before the village of Monſie in five, ſixe or ſeven fathom. When you ſayle thus from the cape de Bylem to Monſie, then thee rocks (which lye in the middeſt before the Haven) remaine about an English mile to ſeawards on the weſt-ſides of you.

The Weſter Channell of Monſie. For to ſayle in at the weſter channell, you muſt go in eaſt ſoutheaſt indifferent neare alongſt by the land, & when the foreſayd Ladies Church commeth without the poynt, then you muſt ſayle towards the Rockes, which lye before Monſie, as is before ſayd, and anchor within the rockes in 7 or 8 fathom, but runne not to farre in, becauſe there shooteth of a shoaly riffe alongſt the Haven, where of you muſt take heed.

The Eaſter Channell of Monſie. The Eaſter Channell is better to come into, then the weſter channell, ſayle not into Monſie before that you ſee the foreſayd Church without the poynt, you may alſo anchor on the north-ſide of the haven in 5, 6 or 7 fathom.

To the ſouthwards of the village of Monſie is a bay where the foreſayd riff or shoale lyeth before, lying eaſt north-eaſt at leaſt two cables lenghts alongſt the Haven.

Out Ladies Church and the Munck lye one from the other north and by eaſt and ſouth and by weſt.

Southweſt from the cape de Bellem 3 leagues lyeth the Cape de Coriane.

Cape de Coriane. From cape de Coriane it is ſouth and north 3 leagues to Cape de Finiſterre: betwixt the two capes is Sand-bay where men may anchor to the eaſtwards of a great rock in ſix or ſeven fathom. This a great Bay which goeth in for into the land. At the north-ſide of this Bay lye rocks under water, where of men muſt take heed.

Seche. Corck Bayone. About a league to the eaſtwards of cape de Finiſterre on the ſouth-ſide, lyeth the Haven of Seche or Corcovia, & is called by the Dutch Schippe-maſters, Corck Bayone. Betwixt this Haven and the cape lye two land bayes, the firſt, or that which is next unto the cape, is the greateſt; and by the ſecond, goeth in this Haven north in eight & nine fathom. On the eaſt-ſide of the haven lyeth a great Rocke, & about ſouth-ſouthweſt of from that Rock, almoſt in the middeſt of the Haven lyeth a ſuncken rocke under water: but run in north untill you eſpye the towne on the weſt-ſide, and anchor there in 6 or ſeven fathom. Within upon the river lyeth alſo a Village, or little towne, about north-northeaſt from you.

Mores. From cape de Finiſterre to the Haven of Mores, the courſe is ſ. eaſt 5 great leagues, when you come about the Cape de Finiſterrre, you shall ſee a high ragged hill, which runneth ſo farre to the ſouthwards, that you may ſee it alſo before Mores, that is a good marck for to know the land by thereabouts.

When the foreſayd ragged hill is n.e. from you, then are you thwart of C. de Finiſterre, & then the hill Monte Lauro which lyeth upon the n.e. point of Mores, lyeth e.n.e. from you, that is a high cloven hill, which is alſo good to know.

Southeaſt 3 little leagues from the Cape de Finiſterre, lyeth a rane of rockes under water, & eaſt ſoutheaſt about two leagues from theſe rockes, lye alſo ſome rockes above water a little to the northwards of Monte Lauro, or the Sound of Mores, and lye from Monte Lauro weſt and by ſouth. Alſo there lye a deale of rock to the ſouthwards of this Sound of Mores, and right in the midſt of the Sound lyeth alſo a ſuncken rock about ſ.e. of from Monte Lauro.

For to ſayle in to Mores.

Hee that will ſayle into Mores, hee muſt bring Monte Lauro n.e. and by n. of him, and ſayle in ſo right with it, & then hee ſhall not come to neere the fowle ground or dangers: when hee commeth then by Monte Lauro, hee ſhall ſee the foreſayd rockes lying out to the northwardes of Monte Lauro, hee muſt leave them as alſo the poynt of Monte Lauro 2 or 3 cables lengths on the larboard-ſide of him, and ſayle in ſo alongſt by them, untill that hee come paſt the ſecond poynt, leaving the ſuncken rock (which lyeth in the midſt of the Sound) on the ſtarboard-ſide of him: & when the fiſher village which ſtand to the northwards off Monte Lauro commeth to ſtand altogether bare, then hee is within the ſuncken rock which lyeth in the midſt of the Sound ſouth and by eaſt eaſterly from the eaſt-end of the foreſayd Fiſher village.

When you come by the ſecond poynt, you muſt runne in about it within a cables length, & edge up to the northwards, untill you come before the village, or up to the weſtwards before the towne, where you pleaſe, and anchor there in 12 or 13 fathom.

For to ſayle in to Rio Roxo.

If you will ſayle into Rio Roxo, then run about without the rockes, which lye to the ſouthwards of the Mores, and goe in ſoutheaſt and by ſouth, untill that you come before the haven of Rio Roſſe, or Roxo, then you ſhall ſee a great many of rocks, lying of from the northland, allmoſt unto a great rock, or Iſland, called Salure: betwixt theſe rockes that lye out there, and the Iſland Salure, you may well runne throug about to the northwards of the Iſland, but it is very narrow, by reaſon of the foreſayd rockes, which lye of from the north-land, therefore ſayle about to the ſouthwards of the ſame Iſland, indifferent cloſe alongſt by it, leaving it on the larboard-ſide, or to ſeawardes of you untill that you ſee the Sound open, & then runne in keepingh the middle of the channell, unto that Iſland Roxo, which you ſhall ſee lye in the middeſt of the haven, when you come neere it, you may anchor under the ſouth-land, there are two ſand bayes, where is good anchor ground.

About two leagues ſouthweſt from Rio Roxo lyeth a ſuncken rock, John Claeſz. Bors of Sardam, did ſayl upon it, and there loſt his ſhippe the 20 of February 1613. in the night.

Ponte Vedra.

From Rio Roxo, or the Iſland Salure, unto Ponte Vedra, or the Iſland Blydones, the courſe is ſouth ſoutheaſt foure leagues, betwixt them both it lyeth an Iſland called Monte Carbela; within it, is three fathom deepe. Right before the haven of Ponte Vedra lyeth the Iſland Blydones, which men may ſayle round about. On the north-ſide it is not deeper then five or ſixe fathom. There lye alſo within the Sound, on the north-ſide two rockes called the Boos or Oxen. On the ſouth-ſide of Blydones is the right fareway for to ſayle into Ponte Vedra, this haven lyeth in northeaſt untill within the Iſland; ſomewhat further in the midſt of the haven lyeth another little Iſland, which you muſt alſo go to the ſouthwards of, therefore goe in eaſt-northeaſt alongſt by the ſouth-land, untill that you ſee the flat tower which ſtandeth upon the ſouth-land, and then you muſt runne over a banck, right on with the poynt of Ponte Vedra, within it lyeth the towne, thwart of the flat tower, men may anchor in 8 or 9 fathom: This haven is at ſome places foure fathom deepe.

Monte Carbela. Blydones.

Iſlands of Bayone.

Five leagues to the ſouthwards of the Iſlands of Blydones lye the Iſlands of Bayone, when men come in out of the ſea, right with them, then theſe Iſlands doe ſeeme to be all gray and black rockes, & lye to ſee to, as if they where 3 Iſlands, althoug that the ſea doe runne throug them, but at one place, betwixt each is a ſaddle or valley.

Within the land alongſt over theſe Iſlands, men ſhall ſee two high hills very eaſy to bee known, the eaſtermoſt hath three high hommocks, and the weſtermoſt two with valleys betwixt the hommocks; a little to the eaſtwards off the eaſtermoſt hill men ſhal ſee a white Abbey, ſtand againſt the high land, whereby this land is very eaſy to be knowne.

For to ſayle in to Bayone, from the northwards.

You may ſayle within theſe Iſlands of Bayone either to the northwards or the ſouthwards; but at the north-eaſt-poynt of the Iſlands lyeth a rock under water, about a cables length off from them, where of you muſt take heed, and anchor in 10, 11 or 12 fathom on the eaſt-ſide of the Iſlands.

Hee that will ſayle in to the northwards, muſt runne in betwixt the Iſlands and the maine land, keepingh neere about the middle of the channell, but neereſt to the Iſlands untill that the Sound of Vigo, or Cannas bee open, and then ſayle in to the eaſtwards there is a broad Sound, where men may anchor on both-ſides, to wit, on the ſouth-ſide before Vigo, and on the north-ſide before Cannas in twelve or thirteene fathom.

Vigo, Cannas.

Alſo men may ſayle further in about the ſouth-poynt of Rondella, where men may ſave a ſhippe in the oaze, without anchor or cables.

At the poynt of Vigo lyeth a little Iſland, he that commeth in to the northwards of the Iſlands, and is bound in for Bayone, may ſayle throug betwixt that little Iſland & the poynt Vigo, right in with Bayon, to wit, alongſt a little to the weſtwards of the poynt, untill hee come before the towne, and anchor there in 4, 5 or 6 fathom.

Betwixt that foreſayd little Iſland, and the poynt of Vigo, it is at high water 4 fathom and a halfe, and at low water tree fathom and a halfe deepe, men muſt (ſaylingh through there) give the poynt of Vigo a birth, becauſe of ſome ſuncken rocks that lye off from it. When as men lye in the roade before Bayone, in 5 or 6 fathom, they may ſee the Iſlands of Blydones through betwixt the foreſayd poynt of Vigo, and that little Iſland.

From that ſame little Iſland lyeth to the weſtwards another little Iſland or rocke betwixt them both it is fowle, ſo that men cannot ſayle through betwixt thim, & from that weſtermoſt little Iſland lyeth a fowle riffe of ledge of rockes, ſ. w. of towards the poynt of the land of Bayone, where of men muſt take very good heed, whether you come from the northwards and will ſayle throug betwixt that riffe and the Iſlands of Bayone, or els come in from the ſouthwardes, betwixt the Iſland and the maine, & will goe in for Bayone.

That riffe lyeth at low water in many places dry, the outermoſt rockes thereof, and the poynt of Bayone, where the Caſtle ſtandeth upon, lye ſoutheaſt and ſoutheaſt & by eaſt, and northweſt and northweſt and by weſt an English mile aſunder, therefore hee that commeth from the northwards, and will goe into Bayone to the weſtwards of that riffe, that is betwixt the riffe and the Iſlands let him goe ſo long to the ſouthwards, untill that the Caſtle of Bayone come to be eaſt ſoutheaſt and by ſouth from him, and ſayle then towards it, and then hee ſhal runne farre enough alongſt to the ſouthwards of it.

At the ſouth-end of the Iſland of Bayone, lyeth a great rock, with a deale of ſmall rockes round about it, men may ſayle very cloſe alonghſt by them, but at high water the outermoſt rocks lye under water, where of men muſt be mindfull, cloſe by the rockes it is 20 and 25 and 26 fathom deepe. From the poynt of the maine land over againſt the ſouth-end of the Iſlands, runneth of a ledge of rocks, where upon it breaketh very much, when the Sea is grown, where of alſo men muſt take heed.

Iſlands of Bayone.

When you come from the ſouthwards, or out of the ſea, and will ſayle in for Bayone, about to the ſouthwards of the Iſlands with a ſoutherly or ſouthweſt winde, then runne right with the ſouth-poynt of the outermoſt land of Bayone, untill you come neere about a halfe league of the land, and then alongſt by the ſhoare, unto the outer-poynt on the ſouth-ſide of the commingh into the Bay, where that foreſayd riffe runneth of, which lyeth off low,

give

give that riffe a birth, and run in betwixt it and the foresayd rockes at the end of the Islands, northeast, or eastnortheast in, according as you shall come in out of the sea, leaving the riffe on starboard, & the rockes with the Islands on the larboard-side untill that you come to the end, or to the northwards of the risse, the north-end, or the outermost poynt of that riffe at the south-poynt Bayone where the castle standeth upon, lye neareſt east and north, and west & by south a little league asunder. When as then you have the foresayd riffe (on the south-side) upon your broad side, or els are to the northwardes of it; & that the castle doe stand east, or there abouts from you, goe then right in with the castle leaving that foresayd other riffe (which lyeth of S. w. from the little Islands at the poynt of Vigo) on the larboard side of you. If you bring the poynt of the castle not to the southwards of e. s. e. then you cannot take any hurt of the northermost riffe.

The outer Rocks of that northermost riffe, (which shooteth of from the two foresayd little Islands) and the riffe which shooteth of from the south-poynt of the land of Bayone, where men must sayle throug betwixt lye one from the other s. w. and s. w. and by south, and n. e. and by n. about an English mile asunder. When you come neere the castle, then come not very neere the shoare, which is not very cleane, and when, as then you come thwart of the innermost poynt of the castle before that you begin to see the Towne of Bayone, from behinst the poynt, you must looke well out before you: for from that same innermost poynt, and from the castle, there lyeth of a sunck en Rock about halfe a cables length from the foresayd poynt, where upon remayneth at low water no more then 9 or ten foot water, keepe therefore (thwart of it) some what of from the poynt. When as you begin to see the Towne of Bayone, then suffe up suddenly, south and sayle before the Towne, and anchor there in 5 or 6 fathom, where you please, or els that the poynts of the castle come against the westermost Island of the two which lye of from the north-poynt of Vigo, there it is good oasie ground that holdeth well, set your anchors when you moore, n. w. and s. w. the best anchor to the s. e. from thence over the high land you shall have commonly the hardest winds.

For to sayle in to Vigo or Cannas from the southwards.

If you must turn to and againe into the Bay, then take very good heed, when you run of from the castle, that you run not to far over s. s. e. right before the Towne, s. e. and by e. and e. s. e. from the roade about a musket-shot, lyeth another suncken Rock, which at low water is even uncovered, it lyeth a small cables length of from a little poynt in the south-poynt of the Bay, where upon standeth a little house, appearing a farre of like a great green Rock; you must be very carefull of it; specially when you runne over towardes the s. s. e.

But he that is bound into Vigo or Cannos to the southwardes of the Islands, shall sayle in betwixt that southermost Island and the poynt of the land of Bayone, all alongst in the middle of the channell, n. e. or n. e. and by north in, at least two great leagues, keeping the norther-haven two shippes lengths open, so long untill Cannos come to the north-land without the poynt of Vigo: and then he must leave the poynt of Vigo on the starboard side of him, and run in (keeping the middle of the channell) betwixt the north-land and the Towne Vigo, and anchor there either before Cannas or Vigo, where hee pleaseth in 10 or 12 fathom.

S. Rego. A little to the northwards of Camina, lyeth on the coast a hig steep hill, above in the top with a clift or saddle, being called S. Rego, it is allmost of fashionlike Monte Lauro, but at least once so high againe, this hill is a very good marck for to know the places there abouts. About halfe wayes betwixt this hill and Bayone, lyeth an Abbey upon the side of the land, that is also a good marke for to know Bayone for him that commeth from the southwardes, but the chiefest markes are the two foresayd high Hills within Bayone, the one with two the other with three Hommocks, when that with the three valleys or saddles is e. s. e. from you run in then right with it, you shall not sayle to fall with the land, right with the Islands.

Five leagues to the southwards of the Islands of Bayone, lyeth the haven of Comina, a broad-haven, where you must goe in (with great ships) at the highest water. In the Havens-mouth, which lyeth in n. e. and by e. lyeth a Rock neereſt the south-side; close to the northwards of this rock, is the deepest water, for to sayle in or out. Within in the haven, on the north-side, lyeth a little Island, and upon it standeth a little Tower, you must keep that over the Tower, which standeth upon the north-land, and so must run in right with them.

In this Havens-mouth is at halfe Flood two fathom water.

At the north-side of the Haven it is altogether shoale water, and very rocky and fowle: there shooteth of a ledge of Rockes or riffe where of men must take good heed.

Of the Tydes and Courses of the Streames.

On these coastes, as on the former, a s. w. & n. e. Moone maketh high water.

A s. w. & n. e. Moone maketh full Sea at the foresayd places, on the Sea-coast, & within the Havens a poynt later.

A n. e. & s. w. Moon maketh on these coasts full Sea, like as on all the coastes lying on the great Sea, there goe also no streames alongst the land, because (throug the swelling of the Ocean Sea) the flood commeth right on against the coastes, and falleth right in and out at the Havens.

How these Lands doe lye one from the other, and from other Lands.

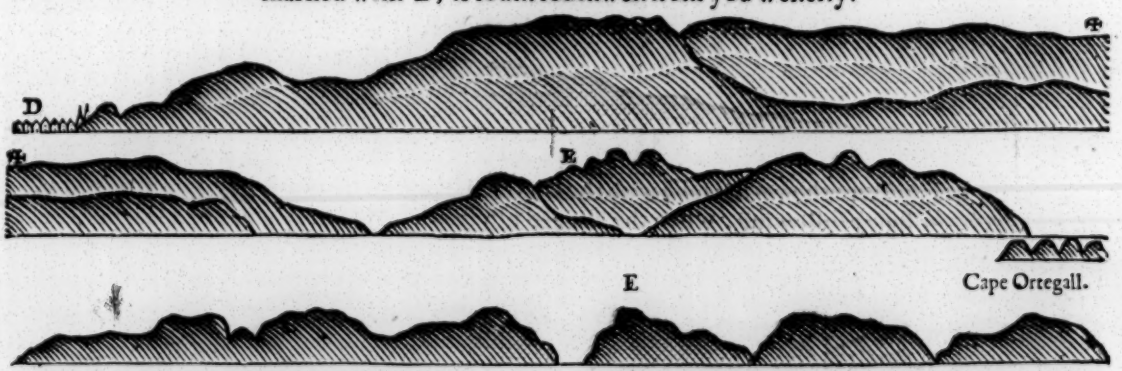
From cape Ortegall to Siverus, s. w.	5 leagues
From Siverus to cape de Prior, s. w.	5 leagues
From cape de Prior to Feroll, s. & by e.	3 leagues
From Feroll to the Groyne, s. and s. and by west	3 leagues
From the Groyne to Cisarga	7 or 8 leagues
From Cisarga to Queres, s. and by w. and s. s. w.	2 leagues
From Cisarga to cape de Bylem, or the east-poynt of Monsy, s. w. and by west, & w. s. w.	12 leagues
From cape de Bylem to cape de Coriane, or Torrivian, s. w.	3 leagues
From cape de Coriane to cape de Finisterre, south	3 leagues
From cape de Ortegall to cape de Prior, s. w.	10 leagues
From cape de Ortegall to Cisarga, s. w. & s. w. & by west	19 leagues
From cape de Prior to Cisarga s. w. and by west	8 leagues
From Feroll to Cisarga, w. and by s.	8 leagues
From cape de Ortegall to cape de Coriano s. w. & by w.	33 leagues
From cape de Ortegall to Waterford in Ireland, north	168 leagues
From Cisargo to cape Velo, north	160 leagues
From Cisargo to Silly north and by east	137 leagues
From cape de Finisterre to Mores, or Monte Lauro, s. e.	5 leagues
From Rio Roxo to Ponte Vedra. s. s. w.	4 or 5 leagues
From Ponte Vedra, or Blydones, to the Island of Bayone, s. s. e.	5 leagues
From Bayone to Camina, s. and by e.	4 leagues
From C. de Finisterre to the Island of Bayone, s. e. & by s.	20 leagues
From cape de Finisterre to Port a Port, s. s. e.	42 leagues
From cape de Finisterre to Avero s. and by e. and s. s. e.	53 leagues
From cape de Finisterre to the Burlings south	67 leagues
From C. de Finisterre to the great Canaries s. s. w. southerly	307 leagues
From cape de Finisterre to the Salvages, s. s. w.	273 leagues
From C. de Finisterre to the Isle of Madera, s. w. & by w. southerly	197 l.
From cape de Finisterre to the Isle S. Michael, w. s. w.	247 leagues
From cape de Finisterre to the Isle Tercera w. s. w. & w. & by s.	278 leagues
From cape de Finisterre to the southwest-poynt of Ireland, n. and by w & north.	173 leagues
From cape de Finisterre to cape de Claro north	173 leagues
From cape de Finisterre to Waterford, or to the Southeast-poynt of Ireland, n. e. & by east	185 or 186 leagues
From cape de Finisterre to the Lizard, n. n. e.	153 leagues
From cape de Finisterre to Seames, n. e. & by n. northerly	112 leagues
From cape de Finisterre tot Belle-Isle, n. e.	122 leagues
From Bayone to the Burlings, south and by west	49 leagues.

Heights.

Cape de Ortegall lyeth in	44 degrees 5 min.
Cape de Coriane in	43 degrees 8 min.
The cape de Finisterre lyeth in	43 degrees
Bayone lyeth in	42 degrees 10 min.

How these Lands doe shew themselves at Sea.

These two figures following belong at crosses one to the other, and shew the rising of the land a little to the eastwards of the Cape Ortegall, when the poynt marcked with D, is five or sixe leagues east and by south or east southeast from you, and the hill marked with E, is south southwest from you westerly.



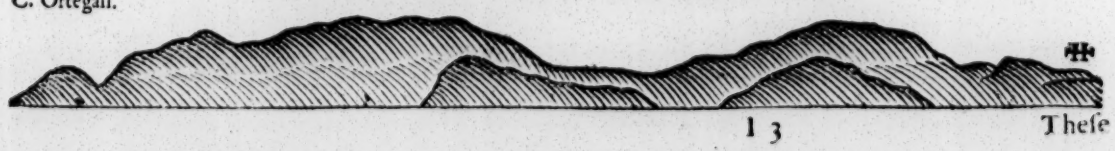
When Ortegall is southeast from you, it sheweth it selfe thus.

Thus sheweth Ortegall, when it lyeth southeast and by south from you.



Thus ariseth Ortegall, when the eastermost hill lyeth s. s. e. from you, and that you may see east-end with cleare sight, being 8, 9 or 10 leagues off it Sea.

C. Ortegall.





These 2 figures belong at the double croſſe, one to the other, & shew the C. Ortegal, with the land to the weſtwards of it, when the foreſayd Cape is east & by south 5 or 6 leagues from you.

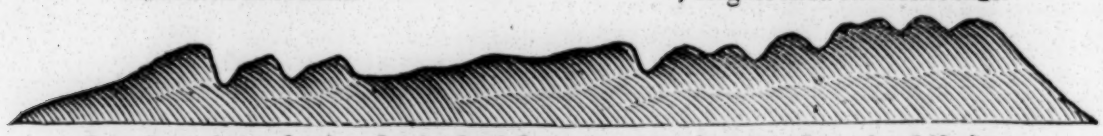


The land to the eaſtwards of the Groyne sheweth thus, when it is south & by east from you.

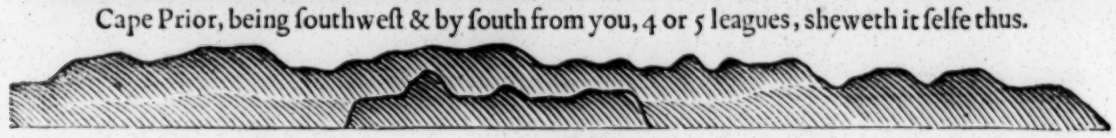


Cape Prior the east-poynt of the Groyne ariſeth in this forme.

Cape Prior being southweſt from you 6 or 7 leagues sheweth it ſelfe thus.



Cape Prior, being southweſt & by south from you, 4 or 5 leagues, sheweth it ſelfe thus.



C. Prior.

When the C. de Prior is e. & by n. eaſterly 3 or 4 leagues from you, it ariſeth in this forme.



Thus sheweth the Iſland of Ciſarga, when you are one league thwart from it.

Thus sheweth the land of Monſie, betwixt Ciſarga & Cape de Finiſterre, when you come from the east, and sayle alongſt by it.



When cape de Finiſterre is south southeast from you, then it sheweth thus.



The cape de Finiſterre, being southeast southerly from you sheweth it ſelfe thus.



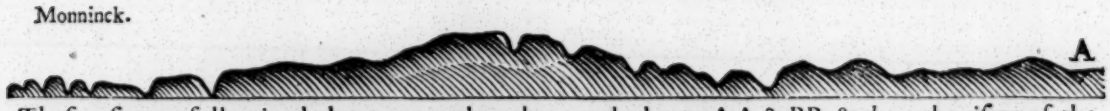
Thus sheweth cape de Finiſterre when it is ſ. e. easterly from you.

When cape de Finiſterre is ſ. e. & by e. from you 5 or 6 leagues then it sheweth it ſelfe thus.

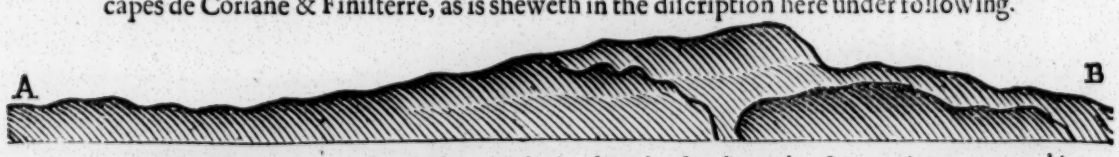


Thus doth cape de Finiſterre shew it ſelfe, when it lyeth 5 or 6 leagues e. and by ſ. from you.

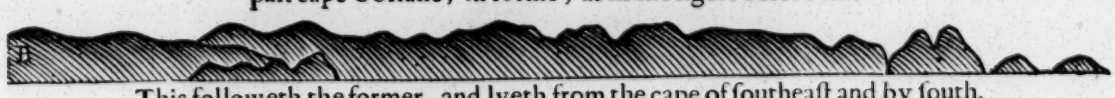
Monninck.



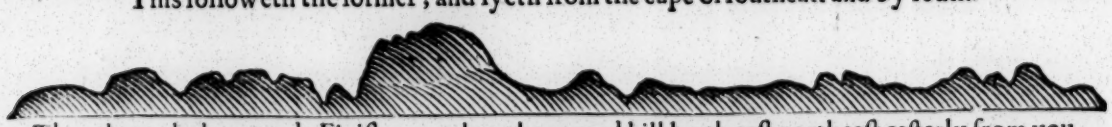
These 3 figures following belong one to the other, at the letter AA & BB, & shew the riſing of the capes de Coriane & Finiſterre, as is sheweth in the diſcription here under following.



The cape de Finiſterre sheweth it ſelfe with the land to the ſouthwards of it, as is pourtrayed in this & the figure following, when the Ragged hill ſtandeth east from you 3 or 4 leagues, & then you shall ſee the land to the northwards of it, unto C. Coriane, n. e. unto paſt cape Coriane, in forme, as in the figure before this.



This followeth the former, and lyeth from the cape of ſoutheaſt and by ſouth.



Thus sheweth the cape de Finiſterre, when the ragged hill lyeth east northeaſt easterly from you, and then the land of Moores lyeth from you, e. n. e. as is here following demonſtrated.



Thus

Cust van

PORTVGAL

't Noordelyckste deel beginnende van Viana tot aen Pissage.

P O R T V G

Port a Port

Clooster

Villa nova

Mortagoa Clooster

S. Anthony

Cloosmeer

Masoreel

Ville del Conde

Viana

Esprosade

Norde

Zurara

Duytsche mylen 15 in een graet

Spaensche mylen 17½ in een graet

Eng. en Fra. mylen 20 in een graet

G A L L I A.

Aveiro

Soutlant

Soutlant

I. Aguas

Pysagie

C. d'Avanco

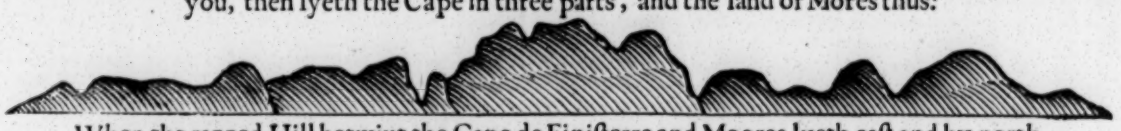
Vinna.



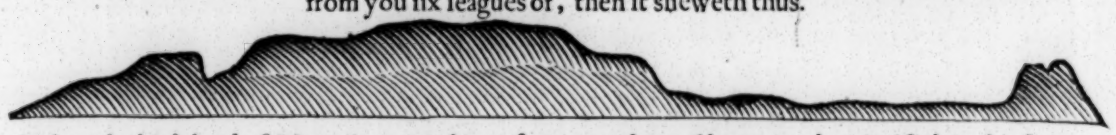
Thus sheweth the ragged hill of the Cape de Finisterre, when it lyeth east and by north from you.



When the C. de Finisterre lyeth northeast from you, and the land of Mores e. n. e. 6 leagues from you, then lyeth the Cape in three parts, and the land of Mores thus:



When the ragged Hill betwixt the Cape de Finisterre and Moores lyeth east and by north from you six leagues of, then it sheweth thus.



When the high land of Mores is n. e. & by n. from you about 6 leagues, then it riseth in this forme.

Monte Lauro. The high land of Mores.



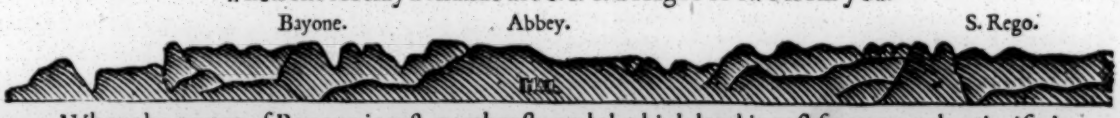
When Cape de Finisterre is northeast or north-northeast, and Monte Lauro is e. n. e. 5 leagues from you the high land of Mores sheweth it selfe thus.



Island of Bayone.

Thus shew themselves the Islands of Bayone, and the high land to the southwards of them, when the forefayd Islands are e. s. e. a league or two from you.

Bayone. Abbey. S. Rego.



When the poynt of Bayone is east-northeast, and the high land is east from you, then it riseth thus, to the southwards of it lyeth the high Hill of S. Rego.



Bayone. Abbey. S. Rego.

When the high Hill S. Rego is east from you, then the high land of Bayone sheweth it selfe thus.
Thus Abbey standeth about halfe wayes betwixt S. Rego and Bayone.

The sixth Demonstration,

Where in is are shewed

The Coasts of Portugall, from Camina to Passage.

Viana. SEven leagues to the southwards of Camina lyeth Viana upon a river. From the north-poynt lyeth of a ledge of rockes thwart over before the mouth of the river,& upon the south shoare, stand two Fire-towers. If you will sayle in to the river of Viana,comming from the northwards, or out of the sea, then run so long to the southwards untill that the two foresayd Fire-towers upon the south-side of the rivers mouth, come one to the other,& then run in right with them towards the strand, untill that the little tower upon the north-land come over the 2 houses; keep them one to the other, & runne then to the rock with the mast, and sayle alongst close to the eastward of it, & then you run in alongst over the Barre or the shoalest of te rivers mouth, there is at low water with an ordinary tyde two fathom depth. When you are past the foresayd rock with a mast or beacon, which lyeth on the north-side of the river: run in likewise close alongst to the southwards of it, & afterwards indifferent close alongst by the north-land, untill you come before the Town, there runnet of sometimes a little riffe which you must give a birth to, & anchor before the town. When you lye before the towne,there lyet a little Island to the southwards of you, where upon standeth a little Chappell: to the westwardes of that little Island lyeth a great bancke,which at low water is uncovered, behind that banck it is 5 and 6 fathom, and before Viana, 7, 8 and 9 fathom deepe; when you come in they may run in about to the southwards of this foresayd banck, and come out again before the town, by the little Island, where the little house standet upon.

When you come in about a bow shot within the second rock with the mast, there you may well let fall your anchor and bring Cables on the south shoare, and more there by foure cables.

Men may anchor without in the road in 12 fathom, there is the cleanest ground for to take in a Pilot. It is a narrow and dangerous barre for to come into.

From Viana to Port a Port, the course is s. and by e. 12 or 13 leagues,betwixt both lyeth Villa del Condé, 7 leagues from Viana and from Metelyn. Villa del Condé is a broad haven, before the haven mouth lye many rockes, where men may sayle in about them on both sides, to the northwards or to the southwards of them it is 5 and 6 fathom deepe; further in lyeth a banck thwart over the haven of two fathom at hig water: within the haven it is 3 or 4 fathom deepe, on the north-side it is all full of rocks, which lye most under water, but on the south-side it is deepest & surest, and good lying in 5 or 6 fathom. Villa del Condé.

Foure leagues to the southwardes of Villa del Condé lye out the great roks, called Lesons, right before a little broad haven of 2 fathom depth, called Metelyn, & s. w. from the south-poynt of the foresayd rockes Lesons; about a halfe league Rockes Lesons.

league to Seawards, leyth a suncken rock under water: betwixt the land and the Lesons it is 6 and 7 fathom deep.

Port a Port. A league to the s. wardes of the rockes Leson lyeth Port a Port. From the n. poynt of the river mouth lye of many rockes, allmost thwart over the channell. For to sayle in there, you must run in close alongst to the s. wardes of the outermost Rock, even so neere by it that you may cast with a stone upon it. There standeth a little Chappell upon north shoare right against the rock with the crosse, and also a little white house upon the north shoare somewhat further up upon the river, bring them one in the other, and run in so right with them untill you bee past the Castle. In sayling in so, you shall not finde lesse upon the shoalest of the Barre, then 17 or 18 foot water at halfe flood, and shall not come to neere a sunken rock, which lyeth without in the Rivers mouth, somewhat neerer the south-shoare then the north, where upon there remaineth at low water no more then 11 or 12 foote water. Being within the Castle, goe then right towardes the rock with the crosse, and so close alongst to the s. wards of it, that you may reach is with a boat hoock, or els you must run in 3 or 4 ships lengths to the southwards of it, or alongst by the south-land, untill you bee past the Rock with the crosse, for to avoyd a suncken rock, which lyeth thwart of it a little to the southwards of it, and at low water is no more then 8 foot under water. Being a little past the rock with the crosse, go then up alongst in the middle of the channell, untill you come thwart of a great white Tower upon the north-land, there you may anchor in 4 or 5 fathom, or sayle before the Towne, here it is 3 and 4 fathom deepe. A little past the rock with the crosse is a shoale, where upon remaineth at low water no more then 11 foote water, so that with shippes that draw 12 foote water, men must stay for high water, it floweth there 6 foot up and downe with an ordinary tyde.

On the south-side of the River goeth in also a Land-deep to the southwards of the foresayd sunken rock, which lyeth in the Rivers mouth, where the Pilots sometimes bring ships in and out, that is a good channell, & oftentimes it is east to againe of the Sea, so that there is no certainty to bee written of it, that men should trust upon

From Port a Port to Avero, the course is south, 10 leagues: betwixt them both it is all alongst a cleane sand-strand, where men may bebold to come neere the shoare every where in 10 or 12 fathom.

Within the land upon the high land lyeth a black hommock in the land, when that lyeth e. s. e. from you, then you are upon before Avero: when you cannot see the black Hommock Carmole, then lyeth there a roug sand-hill to the northwards of the Barre, when that is thwart of you, a halfe league to the northwards of the Barre of Avero.

If you will sayle in over the Barre of Avero, and that you come before it in 6 or 7 fathom, then take heed to 3 beakons made of mast, which stand upon the south-land, bring them one in the other, and sayle in so right with them e. and by s. and e. s. e. in over the Barre, there is comming in, at halfe tyde, no more then 2 fathom water, untill that you come by the beakons, you shall so (being come within the poynt) sayle alongst by a dry sand on the larboard side, edge then up n. n. e. and n. w. about by that foresayd dry sand, untill you come close to the northerl[illegible] and run in by it, and then you shall leave all the other shoals on the starboard side, untill that you see the River open, and then you shall see a little house upon the strand on the west side, goe then from thence up into the River, e. and by s. and e. s. e. keeping the middle of the channell betwixt the two lands, untill you come before the Saltponds or Avero, where you may lade your ship with Salt.

The coast of Portugall about Viana, is very easy to be knowne, by the foresayd hill of S. Rego, which is exceeding high, & lyeth on the Sea side: the high land of Viana lyeth 2 or 3 double within it.

Betwixt Viana, Ville del Conde, & Port a Port, men shall see alongst the coast many Towers & little Houses, Villa del Conde men shall see at Sea like a great Towne.

The River of Port a Port men may know by the Rocks Lesons, they are very high, and lye a little to the northwardes of the River.

The cape de Montego is a high poynt, & within it in the land are high Mountains. The cape is sometimes taken to be the Rock, but it is easie to be discerned from it because of the Burlings, which lye here to the southwards, & to the northwards of the Rock.

The cape de Montego lyeth from Avero s. s. w. distant 7 leagues: a league to the southwards of it lyeth Passage, or the river of Montego, a broad haven. From the cape de Montego runneth of a fowle ledge of Rocks, a good wayes from the shoare, which men must avoyd. Under the cape men may ryde for northerly winds in 7 or 8 fathom, a n. n. w. wind commeth right from the poynt, for southerly windes men may anchor to the southwards of the River of Montego.

From the south-poynt of the River runneth of a sand riffe when you sayle in there, & that you come in out of the Sea, it sheweth as if you might sayle into the southwardes of the riffe, but it is not to be done: you must sayle into the northwards of it. Upon the north-poynt standeth the little village S. Caterina, & a little to the northwards of it a Fisher village, called Burcos. Upon the northside within the havens-mouth standeth a lime kilne, with a wood of Fig-trees, when you bring them one in the other, and then sayle so right in with them, you runne in right in the channell, there is sometimes no more then 12 or 13 foot water at a halfe Flood: you may not certaynly trust to the description of this haven; for in regard it is there sand-ground, it doth shift sometimes with the great Freshut that come of the River, and also with stormes out of the Sea. From cape de Montego to the Peniche, or Nova Lisbona, (at the cabo del Fisiron, which is the poynt within the Burlings) the course is southwest & by south 10 leagues, there lyeth of a rock from the poynt, to the southwards of it is a great bay, where men may runne in behinde it with Barcks, & lye landlockt. In that Bay lyeth a little Town against the high land called Artogie, a little to the southwardes of the cape del Fisiron lyeth a high round hommock, which the Dutchmen call young Roxent.

From the cape Montego to the Burlings, the course is southwest 12 or 13 leagues. Behinde the Burlings is a good roade & anchor ground, under the great Island before the Hirmitage, there you may anchor in 10 fathom, you may come in there from the northwards or from the southwardes, it is there broade and wyde, & every where cleane.

Of the Tydes and Courses of the Streames.

A southwest & n. e. Moone maketh at all these places (on the Sea side) high water, & within in the havens a poynt of two later, according as they lye farre with the land.

As on al the coastes of Portugall, even so here also on these coasts a s. w. & n. e. Moone maketh the highest water.

A s. w. & n. e. Moon maketh on these coasts full Sea, within the havens a poynt or two later, according as they lye far within the land.

Courses and Distances.

From Camina to Viana, s. s. e.	7 leagues
From Viana to Villa del Conde s. & by e.	6 leagues
From Villa del Conde to Port a Port s. & by e.	6 leagues
From Port a Port to Avero, south	11 leagues
From Avero to cape de Montego s. s. w.	7 leagues
From Port a Port to the Burlings s. s. w. & s. w. & by south	31 leagues
From Avero to the Burlings, s. w.	20 leagues
From C. de Montego to Peniche, or C. del Fisiron, s. w. & by s.	12 leagues
From cape de Montego to the Burlings, s. w.	13 leagues.

Heights.

Port a Port lyeth in	41 degr. 5 min.
Avero in	40 degr. 30 min.
Cape de Montego lyeth in	40 degr. 14 min.

How these Lands doe shew themselves at Sea.

S. Rego.



Thus sheweth the coast of Portugall from Bayone to C. de Montego, when you sayle alongst by it, about 4 leagues of, the figure following belongeth here to, at the crosses one to the other.

Cape de Montego.



When that black Hommock where the H standeth by, is east southeast from you then are you thwart off, or open before Avero.

The high land of Viana.

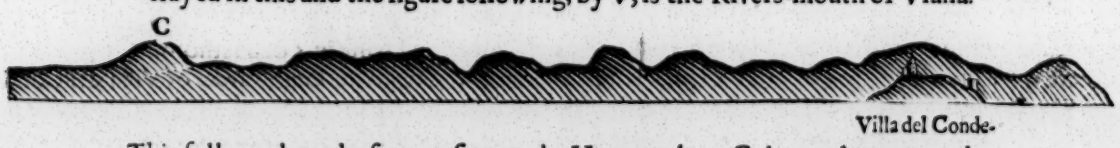


Thus sheweth the land of Viana, and to the southwards of it the Hommock by B is 2 leagues to the northwards of Villa del Conde.

The high land of Viana.



The land by Viana, and to the southwards of it towards Villa del Conde, sheweth as is pourtrayed in this and the figure following, by V, is the Rivers-mouth of Viana.



Villa del Conde.

This followeth to the former figure, the Hommocks at C, is two leagues to the northwards of Villa del Conde.

The

PORTVGALIA

Het Zuydlyc[k]. B[ay]
van Piſsage S.V[incent]

Piſsage

Amogye

Penche

Jonge Roxent

Barlenges

Duytſche mylen 15 in een graet

Spaenſche mylen 17½ in een graet

Eng: en Fran: mylen 20 in een graet

GAEL

dlyc. Beginnende
age S. Vues alias

GALL

Setubal ofte S. Vves

Slot ter Palmen

Troia

Wit huys

't Witte Slot

Loos Bancques

Soutlant

Alcoutche

Palmar

Comra

Lisbona

Almada

Rio Tarefana

Zizember

St Vves bocht

C. de Spichol

Bolrn

Betleem

S. Catryncn Cloester

Reforte

Peniche

S. Gicles

Zeeuder zathers

Cradle dep

Noorder zathers

Sintra

Cabanis ofte d. Roxelt

C. Roxent

W 25

The high land of Viana.



Thus sheweth the foresayd land of Viana, & to the southwards of it, when Viana, (being by A) is northeast from you 10 leagues.

Mettelyne thwart from you.



Rockes about a league to the north of Mettelyne.

Rocks off Mettelyne.

Thus sheweth the land by Mettelyne, when Mettelyne is thwart from you and that you are close by the land.

Castle on the north side of Port a Port, when you come from the northward by the land.

The land to the northwards of Port a Port.



This figure belongeth to the former, and sheweth the forme of the land by Port a Port, & to the southwards of it, when you come from the southwards, you shall see a little village, within the castle of Port a Port, called S. John. A league to the northwards of it lyeth Mettelyn.

The land to the south wards of Port a Port.

Avero.



Abbey.

Thus sheweth the land betwixt Port a Port and Avero, when the high land to the southwards of Port is east and by south from you 4 leagues.



Thus sheweth the land of Port, when you come from the southwards.



Thus sheweth the land of Port a Port, when it is e. s. e. from you about 4 leagues.

Viana. Villa del Conde. Port a Port.



Thus sheweth the land from the northwards of Viana to Port a Port, when you sayle alongst by it.

Port.



When Port a Port is southeast from you 7 or 8 leagues, then it sheweth with the land to the northwards of it in this forme.

The seventh Demonstration,

In which

The Sea-Coasts of Portugall, from Pissage to S. Uves or Setuball are deciphered.

FRom the south-poynt of the River runneth of a sand-riffe; when you sayle in there and that you come in out of the Sea, it sheweth as if you might sayle into the Sea-wardes of that riffe, but it is not to be done: you must sayle into the northwardes of it Upon the north-poynt standeth the little village S. Catharina, & a little to the northwards of it a Fisher village, called Buarcos. Upon the northside within the havens mouth standeth a lime kilne, with a wood of Fig-trees, when you bring them one in the other, & then sayle so right in with them, you runne right in the channell, there it sometimes no more then 12 or 13 foot water at a halfe Flood: you may run not certainly trust to the description of this Haven; for in regard it is there sand-ground, it doth shift sometimes with the great Fresh huts that come of the River, & also with stormes out of the Sea. From Cape de Montego to penice, or Nova Lisbona, (at the Cabo del Fisiron, which is the poynt within the Burlings) the course is s. w. & by s. 12 leagues there lyeth of a Rock from the poynt, to the southwards of it is a great Bay, where men runne in behind it with Barcks, & lye land-lockt. In that bay lyeth a little Town against the high land called Artogie, a little to the southwardes of the C. del Fisiron lyeth a high round Hommock, which the Dutchmen call young Roxent.

From the C. Montego to the Burlings, the course is southwest 12 or 13 leagues. Behind the Burlings is a good roade and anchor ground, under the great Island before the Hermitage, then you may anchor in 10 fathom, you may come in there from the northwards or from the southwards, it is there broade & wyde, and every where cleane.

From the Burlings to the Rock, or Roxent, the course is s. and by e. and s. s. e. 16 leagues but from the C. del Fisiron (behind the Burlings) to the Rock, the coast lyeth s. & north. 15 or 16 leagues. Te Rock or Roxent is a poynt of land very easy to be knowne, although you be a great wayes of, yet you shall alwayes see the sharpe Hommock of the Abbey of Syntra.

Cascalis. A great league to the eastwards of the poynt of Roxent, or the Rock, lyeth the road of Cascalis, where men may lye land-lockt for a north-west, north & n. e. winde, in 12 or 13 fathom, so deep or shoale as they will.

S. Gillians or S. Gilleus. A great league to the eastwards of Cascalis, lyeth the poynt of Saint Julian or S. Gillians, where upon standeth a strong castle, that is the north-poynt of the River of Lisbone, the norther channel of the River goeth in within a bowles cast alongst by it.

For to sayle in at the norther channel. For to sayle into the norther-channel, you must run in, alongst within the length of a mast alongst by the foresayd poynt, but comming before the castle of S. Gillians, you must edge somewhat over to wards the Carrik deepe, for to avoyd some fowle ground & rocks, which lye on the east-side of the castle. Being past that a little, you may luffe up againe to wardes the norther-shoare and sayle alongst by it to Restiers, & so forth even to Lisbone, men doe commonly anchor before the Village of Bolyn in 12 or 13 fathom. Men must take heed not to come into this channell with calme weather, and with an ebbe, which falleth very strong upon the norther Cachops: this channell of S. Gillians lyeth in e. & by s. being within, you must sayle up e. n. e. & n. e. & by east, and when you come against the Abbey at Restier, then you must edge somewhat over towards the south-land, els you must keepe the north-land alongst.

For to sayle in at the Carrick deepe. For to sayle into the Carrick-deep, you shall bring Cascalis, over the west poynt of Roxent, & keepe it so, untill that the little Tower (which you shall see stand above the Abbey at Restiers) come over the white Abbey which standeth the farthest from Restier, to with, over S. Catherines Abbey or Cloyster, goe then n. e. & n. e. and by n. in, keeping these marks standing thus, untill that you come within the poynt of S. Gillies, and then goe in alongst by the north land to Restiers within the castle, and anchor the where you thinke it best. Upon these markes you may sayle in and out at the Carrick deepe. If you come from the westwardes and will goe in to the Carrick deepe, then bring Cascalis over the west-end of Roxent, and sayle so about the norther Cachops, untill that the Town of Lisbone come within two ships lengths neere to the south-side of the River, & then further in n. e and by n. when as then you shall see the sand bay within the poynt of S. Gillians, then are you in the right fare way.

But if it should happen, that you could not see the Towne, or the little Towne, or the little Tower, then keep the sand-bay, which lyeth within S. Gillians-poynt n. e. & by n. from you and sayle so n. e. and by n. in. & take the sounding of the norther Cachops in 8 or 9 fathom: when you begin to come against S. Gillians poynt, sayle then indifferent close along by the north-land, as is beforesayd.

He that will turne out or in to Carrick deepe, must bring the foresayd little tower that standeth within the land, a ships length to the southwards, and a ships length to the northwardes of the foresayd Abbey or Cloyster of S. Catherines, and then cast about every time, and so turne to & againe out and in.

Also come not with calmes in this channel, (neither bound inwards nor outwards) with an ebbe, for it falleth very strong over the east-end of the Cachops.

If you will run out at the Carrick deepe, you must looke out for the foresayd little Tower: when it commeth out from under that high land, bring then a little to the westwardes of the second white Abbey or Cloyster, and goe away southwest and by south, and then the little Tower shall come to the Cloyster.

But if you must turne out to and again, then you must be very carefull of your tydes, for the streames fall strong over the Cachops, so that it is very dangerous with calmes to come in or out at those channells, but especially in sayling out with an Ebbe, for it falleth thwart over the Cachops.

From Roxent to S. Uves poynt, the course is s. e. and by south, 10 leagues, that is also a poynt ealy to be known, by a high round hill which lyeth on it, also men shall see the top of the castle of Sisembre upon a flat hill like a great top or ridge of a countrey house.

S. Uves poynt is called cape de Pitcher, and by the Durchmen cape de Spichel, a little to the southwards about the poynt, is a rent or clift in the land, before it is good riding in 9 & 10 fathom. Before Sisember men may also anchor in 15 or 16 fathom.

Of the Tydes and Courses of the Streames.

On these coastes, as on the former, a s. w. and n. e. Moone maketh high water.

A s. w. & n. e. Moone maketh full Sea at the foresayd places, on the Sea-coast, & within the havens a poynt later.

An. e. & s. w. Moon maketh on these coasts full Sea, like as on all the coastes lying on the great Sea, there goe also no streames alongst the land, because (throug the swelling of the Ocean Sea) the Flood commeth rigt on against the coastes, and falleth right in and out at the Havens.

Courses and Distances.

From cape del Fisiron, or Nova Lisbona, to the Rock, or Roxent south 15 or 16. leagues
From the Burlings to the Rock, or Roxent, s. & by e. & s. s. e. 16 leagues
From the Burlings to the cape S. Vincent, s. and by e. 53 leagues
From the Burlings to the great Canariet, s. s. w. 248 leagues
From the Burlings to the Island Palma, s. w. & by s. 256 leagues
From Roxent to the cape Pitcher, or Saint Uves poynt southeast and by south 10 leagues
From cape Pitcher to cape S. Vincent, s. somewhat easterly 29 leagues
From Roxent to cape S. Vincent, s. & by e. 37 leagues
From Roxent, or the River of Lisbone, to the great Canaries, s. s. w. somewhat westerly 240 leagues

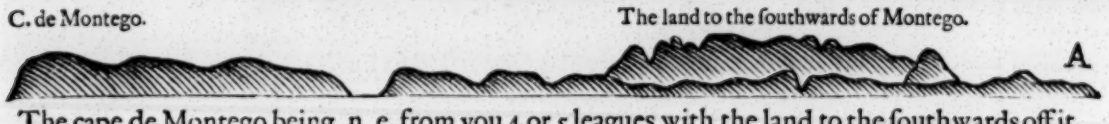
Heights.

The Burlings in 39 degr. 40. min.
Roxent lyeth in 38 degr. 55 min. or as some hold in 39 degr.
Cape Pitcher, or S. Uves poynt lyeth in 39 degr. 30 min.

How these Lands doe shew themselves at Sea.

C. de Montego.

The land to the southwards of Montego.



The cape de Montego being n. e. from you 4 or 5 leagues with the land to the southwards off it, sheweth it selfe as is pourtrayed in this and the figure following at the letters A A they belong one to the other.



This belongeth to the former, and is the land to the s. wardes of Montego, untill thwart of the Burlings.



Thus sheweth the Burlings when the northermost are east from you a league.

The land betwixt Peniche and Roxent, sheweth it selfe as is pourtrayed in these 3 figures following, when the high land to the southwards of Peniche, being called young Roxent, is east from you, the like letters, as A A & B B belong one to the other.

Young Roxent.





This belongeth to the former figure, & is the land to the northwards of the Rock, or Roxent.

Roxent.

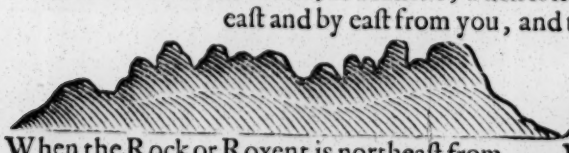


This followeth the former figure, untill Roxent, or the Rocke, at the B, one to the other.

Young Roxent northeast and by east. Roxent south and by east.



Thus sheweth the Rock, or Roxent, when it is south and by east, and young Roxent is north-east and by east from you, and that you are close by the land.



When the Rock or Roxent is northeast from you 7 leagues, it ariseth thus.



When the Rock or Roxent is e. and by s. & e. s. e. from you 7 leagues, it sheweth it selfe thus.

The

Setubal al:
S Wues
Slot van
Palmelo
Wit huys
't Witte Slot
Troia
Soutlant
Lizembre
Blaeuw berg
Salinas
Villa nova
Vuyle bergen
Lagos
Vuyle bergen
C. S. Vincente
Subris

1 2 3 4 5 6 7
Duytsche mylen 15 in een graet
1 2 3 4 5 6 7 8 9
Spaensche mylen 17½ in een graet
1 2 3 4 5 6 7 8 9 10 11 12
Eng. en Fra. mylen 20 in een graet

De Cust van
ANDALVZIA
en Algarve, van Capo de Spichel tot aen het Cap
't Amsterdam.
By Iacob Theunisz. boeck-verkooper op 't nieu
wmarkt Loots man.

RE JNO D
ALGARV

A N D A L V

Z I A

D O

U E

S. Juan del Puerto

Moguer

Palos

Guelva

Wobres

Xavega

Odiel

Salcets

S. Miguel

Lepe

Laron

Ayamonte

Porto S. Maria

Castro marin

Tavila

Faraon

C. de S. Maria

The eight Demonſtration,

Which Contayneth

The Deſcription off Algarve and Andaluzia, from S. Uves to Palos or Cliff.

Road under S. Uves poinct.

FIve leagues to the eaſtwardes of C. Pitcher, or S. Uves poynt, lyeth S. Uves, there lyeth a great bancke before the Havens-mouth. Beneath the high land upon the water-ſide, ſtandeth a white Caſtle, when that is north north eaſt from you, then are you right before the Havens-mouth.

For to ſayle in over the Bancke before S. Uves.

If you will ſayle over the bancks into S. Uves comming of from C. Pitcher, or S. Uves poynt, then keepe the weſt-poynt of Siſember a ſhips length without the eaſt-poynt, & goe then eaſt, and e. and by n. on, untill that the caſtle of Palmelo which ſtandeth above S. Uves, commeth in a valley over the foreſayd white caſtle upon the water-ſide. Sayle then n.n.e. right in with them, untill you come within the caſtle that ſtandeth upon the water-ſide, & then in along within a cables length by the north-land, n. e., and by e. untill you come before the Towne of S. Uves, or Setuball. But when the caſtle of Palmelo commeth under the land, that you cannot ſee the ſame any more, there ſtandeth alſo a white houſe on the north-ſide of the caſtle that ſtandeth on the water-ſide, keepe that then ſo ſtanding, and run in right with them, untill you come within the white caſtle, and goe then in (as before is ſaid) alongſt by the north-land, untill you come before the Towne of S. Uves, & anchor by the ſame Towne, before Fiſher village, in 6 or 7 fathom. Upon the bancke is at halfe Flood 3 fathom and a half water, when you ſayle in over it, you ſhall finde at leaſt ſeven divers ſhoals. There goeth in alſo channell alongſt by the ſouth-land, but that is onely for Barckes: betwixt the ſouther channell and the right deep lye the Bankes at ſome places ſo ſhoale, that they lye allmoſt above water.

For to find the deepeſt water in ſayling out over the banck of S. Uves, with ſhippes that draw much water, doe thus: when you ſayle out from the withe caſtle, then bring the foreſayd white houſe over the north-ſide of the caſtle, that ſtandeth on the water-ſide, ſo that you may ſee directly throug betwixt them, and keepe them ſo ſtanding, untill S. Uves poynt begin to come without the eaſt-poynt of Siſember, them bring the white houſe to the ſoud-ſide of the caſtle, and run ſo out, you ſhall have there the deepeſt water. But when you can ſee that caſtle of Pelmelo, that is direct longſt marck for to run over the bancke: And then that white caſtle muſt bee from you north north eaſt northerly.

It is from S. Uves poynt to cape de S. Vincent, ſouth ſomewhat eaſterly nine and twenty leagues, betwixt both are no knowne havens. Salines a little River lying halfe wayes is alſo unknown.

Salines.

From S. Uves to cape S. Vincent, the coaſt lyeth moſt ſ. and by w. about 32 leagues, betwixt both lye ſome high ſteep hills, which men doe call the Salines, which are very good marcks for to know this coaſt by, but above all ſerve for the knowledge of this coaſt of Algarve, or off the C. de S. Vincent, the Vigebergen, or Mount Chigo, which lye within Lagos and may be ſeen farre of at Sea. A half leag. to the northwardes of C. de S. Vincent lyeth a high cliffe in the land, that is ſomewhat whitiſh, and higher then the other land; when you ſee that, then you are by the cape de S. Vincent. Upon te poynt of the cape ſtandeth a broken Abbey or Cloyſter, and cloſe by the poynt lyeth a high rock, being called by the Dutch ſaylers Monninck-ſtrand.

A little about the poynt of the cape S. Vincent men may anchor in a ſand-bay, for a north and northweſt wind in 20. fathom.

Road under Cape S. Vincent.

About the ſecond poynt, to the eaſtwards of the cape, is another Sand-bay, there is a good road for a n. w. & n. winde in 14 or 15 fathom. From de cape de S. Vincent to cape S. Marles, or Faro, it is e. or eaſt little more ſoutherly nineteene or twentye leagues: betwixt them both lye Lagos, of Laves, and Villa Nova. From cape S. Vincent to Lagos, it is eaſt and by n. 6 leagues, there is a tyde-haven throug betwixt the rockes, behind a ſtrand of chindle, which falleth dry at low water, men may alſo ryde there for a n.w., w.n.w., and n. wind, in 10 or 12 fathom.

Villa Nova.

Villa Nova lyeth about 4 leagues to the eaſtwards of Lagos, betwixt both, three leagues from Lagos, and one from Villa Nova, lyeth a ſuncken Rock, where of men muſt take heed. Villa Nova, is a good haven, it lyeth in n., and n. and by w., at halfe Flood you ſhal have there two fathom water, within the Haven on the eaſt-ſide lyeth a little Iſland or Rock, and upon it ſtandeth a Tower or little houſe, alſo there ſtands upon the land a great maſt with a barrell upon the top of it: when the little Tower, or little houſe, and the maſt come on in the other, then you muſt ſayle right in with them into the haven, alongſt by the eaſt-land untill you be paſt the little Tower, the weſt-ſide is flat and ſhoale, when as you come by the maſt then you muſt goe up to the weſtwardes before the Towne of Villa Nova, there you may anchor in 4 or 5 fathom.

Faro.

From Villa Nova to Faro, or cape de S. Maria, it is about nine leagues. Upon the ſtrand ſtandeth a fire-tower and from the poynt ſhooteth of a riffe wich men muſt avoyd; into the haven off Faro men muſt goe in from the eaſtwards, it lyeth weſt, and w. n. w in, and they muſt leave the Tower on the larboard ſide, and run in two or three fathom: being within, they may anchor over againſt the Touwne of Faro under the Iſland in three fathom, it is upon the barre at halfe Flood two fathom deepe.

The cape S. Maries ſheweth it ſelfe at Sea (when you firſt ſee it) in one round Hommock, which is a good mark for to know the whole coaſt of the Candado by.

Five leagues n. e. and by e. from cape S. Marie or Faro lyeth Tivila, that is a croocked ſhoaly Barre, which allmoſt every yeare doth ſhift, and is not to truſt to for to ſayle into it, unleſſe it where firſt beakond, or ſeth with buyes, it is at half Flood ſcarce two fathom deepe, men lye there a little within the ſand-hills in foure fathom.

From Tavilla to Ayemont, the courſe is eaſt northeaſt 5. leagues.

Ayemont is a deepe Barre, and one of the beſt havens in the whole Condaet, it lyeth in n. w. by the eaſt-land, at halfe Flood it is three fathom deepe, there lyeth ſome ſhoals before the havens, the markes there of are theſe. There ſtandeth a tree upon the eaſt-ſide, of the haven or Rivers-mouth, when Ayemonte commeth right againſt over the tree, then are you to the eaſtwards of the ſhoals or ſands, which lye before the haven, then you muſt goe towards the foot ſtrand, and leade it in alongſt by it n. w. & n. w. and by w., when you are within, you muſt goe up to the northwards before the Town, or if you wil goe before Porte Maria, the n. w. courſe wil bring you there; within, it is wyde & broad, and 6 or 7 fathom deepe.

There goeth in alſo a have by the weſt-land, where men come in, right out of the Sea, but that by the eaſt-land is the beſt.

Leepe. From Ayemont to Leepe, or S. Michaels, the course is e. & by n. 7 leagues. Leepe hath uncertain bars which oftentimes shift, where men may not trust themselves to sayle into without a Pilot, the Barre that goeth into the eastwardes of the great Island, is held to be the best; from thence they must goe up to the westwardes to wards Taron, & the River, & so come to Leepe, and there they take their lading in before the deepe.

S. Michaels. The Barre of S. Michaels was wont to run thwart over into Sea and to be at halfe Flood 3 fathom deepe, & before S. Michaels 5 fathom: from thence men may com throug within over the shoals at high water into the Taron. River at Leepe. Also men where wont to come in by Taron; but for certainty it is needfull to take in a Pilot for these Barres.

Palos. Saltees. From S. Michaels to Palos, or Saltees, e. & e. & by s. 7 leagues, here men sayl into the great Condaet, this haven goeth in at the west-end off the Rooduyn, there standeth a great broad tree to the westwards of that white cliffe, that you must keepe over a red sand-hill, like as if it where red earth: this sandhill goeth sloping downe: Runne in upon these markes unto the strand, about n. & n. & by west, then shall the Tower Odier which stands above Wolves, come over the east-side of the havens-mouth, keepe Wolves. them so standeth & saile alongst by the strand, without two cables lengths untill you come about the point, & then you run up north to Palos or n.w. to Wolves, & anchor there in 6 or 7 fathom.

It is deepe there within, 6, 7 & also 3 & 4 fathom in sayling up according as men doe sayle farre up, or els not, this Barr is upon the shoalest at halfe Flood 3 fathom and a halfe, but within it is 5 fathom deep.

There commeth also a channel running out of the Sea betwixt the sands then Wolves commeth to the east-side of the havens mouth, & men sayle n. n. w. in; when they are within the havens-mouth, then they must doe as before is sayd. This channell is 3 fathom deepe.

For know ledge of the land here abouts you shal understand that at the w. end of the Rooduyn, lyeth a white steepe land, cliffy, being reddish eart or chalke: he that falleth there with, may think thathe is by the havens-mouth of Saltees, upon it stand some little bus hos of trees, els the land is all without trees, reddish sand, therefore called Rooduyn, or Red sand-hill.

Of the Tydes and Courses of the streames.

A s. w. & n. e. Moone maketh at all these places (on the Sea side) high water, and within in the havens a poynt or two later, according as they lye farre within the land.

As on all the coastes of Portugall, even so here also on these coasts a s.w. & n. e. Moone maketh the highest water.

A s. w. & n. e. Moon maketh on these coasts full Sea, within the havens a poynt or two later, according as they lye farre within the land.

A n. e. & s. w. Moone maketh high water at the cape S. Vincent, & at the cape S. Maria, also on the coasts lying betwixt them both.

But to the eastwardes on the Condaet maketh full Sea a s. w. & by s. & s. s. w. Moone.

Courses and Distances.

From cape Pitcher to the cape S. Vincent somewhat easterly	29 leagues
From the River off Lisbona to the Isle de Salvages, southwest and by south	213 leagues
From the River of Lisbona to Porto Sancto, s. w.	160 leagues
From the River of Lisbona to the Isle Madera, s. w.	176 leagues
From the River of Lisbona to the Island Tercera west	263 leagues
From de cape S. Vincent to Lagos, or Laves e. & by n.	6 leagues
From Lagos to Villa Nova, e.	3 leagues
From Villa Nova to cape Maria, or Faro, e. & by s.	10 leagues
From cape S. Maries, or Faro, to Tavilo, n. e. and by e.	5 leagues
From Tavila to Ayemonte, e. n. e.	5 leagues
From cape S. Vincent to cape S. Maria, e.	19 leagues
From cape S. Maries to Leepe, or S. Michaels, e. n. e.	17 leagues
From cape S. Maries to Saltees e. n. e.	24 leagues
From cape S. Vincent to the cape Cantin, s.	90 leagues
From cape S. Vincent to cape de Geer, south, westerly at least	138 leag.
From cape S. Vincent to the Island Lanzerotte s. s. w.	180 leagues
From cape S. Vincent to the great Canaries, s. w. & by s.	210 leagues
From cape S. Vincent to the Isle de Palma s. w.	124 leagues
From cape S. Vincent to Porto Sancto, s. w. and by w.	144 leagues
And to Madero, s. w. and by w.	157 leagues
From cape S. Vincent to the Isle de S. Maria, w.	236 leagues
From cape S. Maria to Sipiona, e.	29 leagues
From cape S. Maria to the Straite, e. s. e. & s. e. & by e.	42 leagues
From cape S. Maria to cape Cantin, s. & by w.	90 leagues
From cape S. Maria to the great Canaries, southwest and southwest and by south	220 leagues
From cape S. Maria, or Faro, to the Isle de Madera, s. w. & by w.	174 leag.

Heights.

The cape de S. Vincent and S. Maria lye in	37 degrees

How these Lands doe shew themselves at Sea.



The land to the eastwards or to the southwards of Roxent towards Restiers, sheweth it selfe as standeth pourtrayed in this and the figure following.



This belongeth to the former.

Cape Pitcher.



Thus sheweth the Coast betwixt the River of Lisbona, and S. Uves poynt, called C. Pitcher.

Thus sheweth S. Uves poynt when you come from the northwards.



Thus sheweth S. Uves poynt when it lyeth east and by north 6 leagues from you.



Thus sheweth S. Uves poynt when it is northeast and by north 4 or 5 leagues from you.



In this forme ariseth S. Uves poynt, when it is n. n. e. 5 or 6 leagues from you.



Thus sheweth the land about the cape de Saint Vincent, when you come from the northwards, and sayle alongst by it.

Cape S. Vincent. Mount Chigo.



The cape de S. Vincent sheweth thus, when it is north and by east and n. n. e. from you about 8 leagues. The Vygebergh or Mount Chigo lyeth then northeast and by north from you, in forme as is here pourtrayed.



When the Vygebergen, or Mount Chigo is n. n. e. & n. e. and by n. from you 12 or 13 leagues, it sheweth thus, in one long hill, going downe flat at both ends, with another peece of land, much lower to the eastwards of it.

Thus

Malaga

C. de Malagon

Fangorola

H I S P A N I A

Marbel

Estepona

Gibralter

Sondant

Puerte Real

Puerte de Suaco

Puerto S. Maria

Isola de Cadiz

Colommen van Hercules

C. Trafalgar

I. de S. Pedro

Punta d. S. Sebastiano

Mortado

Soudant

Rivier van Sevilien

Rotta

S. Lucar de Barrameda

Casteel

Rooduyn

A N D A L V Z I A

1 2 3 4 5 6 7 8

Duytsche mylen 15 in een graet

1 2 3 4 5 6 7 8 9 10

Spaensche mylen 17½ in een graet

1 2 3 4 5 6 7 8 9 10 11

Eng: en Fra. mylen 20 in een graet

Cust van

HISPANGIEN

Vande Rivier van Sivilien tot Malaga; Ende van Barbarien van Out Mamora tot Penon de Velez.

't Amsterdam.

By Iacob Theunisz. Boeckverkooper op't water inde Lootsman.

Penon de Velez

Cassasa

Negalli

Targa

B A R

Riffi

C. Tetuan

Tetuan

Ceuta

Schermikel berg

Alcasar Segeer

C. Malabata

Out Casteel

Tanger

C. Spartel

Leeuwelken

De Straet van Gibralter

Arzila

Tar-Cliff

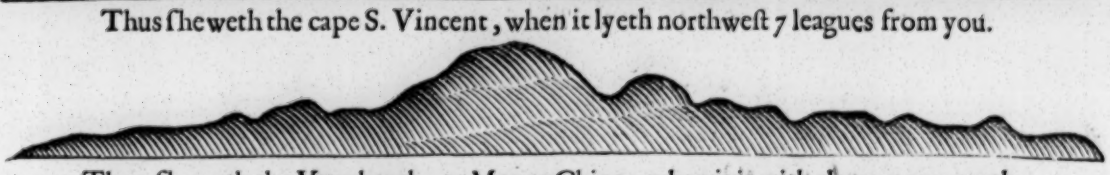
Larache

Our-Mamora

B A R I A



Thus sheweth the cape S. Vincent, when it lyeth northwest 7 leagues from you.



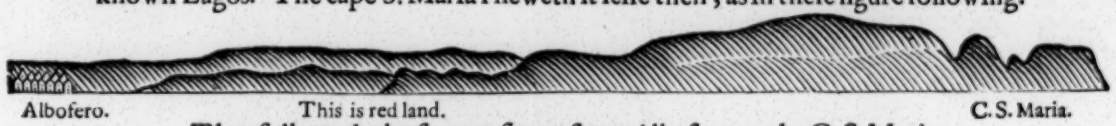
Thus sheweth the Vygebergh, or Mount Chigo, when it is with cleare water north northwest from you 11 or 12 leagues.

Vygebergen, or Mount Chigo.



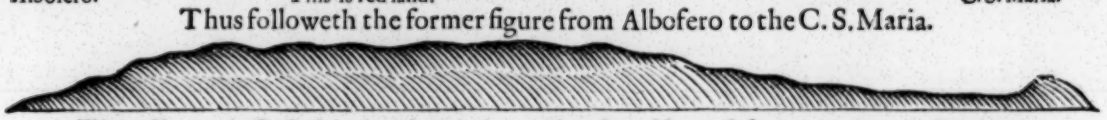
White poynt. Lagos. Villa Nova. Village. Albofero.

Thus sheweth it selfe the land about Lagos and Villa Nova, when you are thwart from Villa Nova, not farre from land, a little to the westwards of Lagos, lyeth a white poynt, where by men may easily known Lagos. The cape S. Maria sheweth it selfe then, as in these figure following.

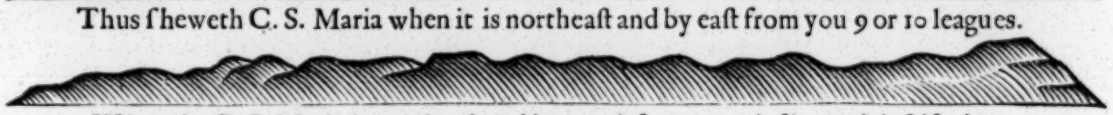


Albofero. This is red land. C. S. Maria.

Thus followeth the former figure from Albofero to the C. S. Maria.



Thus sheweth C. S. Maria when it is northeast and by east from you 9 or 10 leagues.



When the C. S. Maria is northeast and by north from you, it sheweth it selfe thus.

The ninth Demonstration,

In which are sheweth

The Sea-Coasts of Andaluzia, from Palos untill you are past the Straigts by Madril, and the Coast of Barbarie lying over against it, and also the C. Spartell on the Coasts of Barbarie to the Old Mamora.

For to sayle in to the river of S. Lucas.

FRom Saltees to the River off Saint Lucas, the course is southeast and southeast and by east betwixt eight or nine leagues.

If you will sayl into the River of S. Lucas, then sayle alongst the red sand-hills, so long untill that you get the Towne of S. Lucas in sight about e. s. e. from you, there lyeth a white Cloyster to the eastwards of the town, against the hig, & there standeth a great tree upon the high land, bring the tree even to the north-side or the Cloyster, so that you may almost see throug betwixt them but not over the Cloyster, keepe them so standing, & sayle right in with them, and so you shall not come to neer the roks to take hurt of them, & you shall have upon the shoalest at low water & neepe tydes, 3 fathom, & at high water 22 foot, or scarce 4 fathom. When the castle of Chipiona aen the Church beginne to come one in the other, then you come to the first rocks or shoals, when the Church & castle are right one over the other, then they stand s. s. w. from you, then you are upon the shoalest of all, but when the castle with the Church come againe one throug the other, then you get againe deeper water, 3 fath. & a halfe, and 4 fathom at low water with a neepe tyde, sayle in alongst upon the foresayd markes of the Cloyster & the tree, but take good heed that you bring not the tree over the Quire, at the south-end off the Cloyster, for you should then come very close to the rockes, rather bring the tree a little to the northwards of the Cloyster, for you can not lightly take hurt of the red sand-hils, but you may borrow of them upon your lead in 3 and 4 fathom. There stands also a mill to the eastwards of the Towne, take heed that you bring not that also over the round Cloyster that standeth a little to the eastwards beneath at the Towne, but keep them a handspikes length a sunder, & then you sayl in the best deep. But if the foresayd mill, and that round Cloyster come one in the other when you sayle in, then you shall (without sayle) come upon the Rocks or shoals. When you are within over the shoalest, sayl then towards the strand off S. Lucas, untill that you see altogether upon into the River, for to avoyd the riffe that shooteth of from the northwest-poynt of the River, sayle on alonst by the shoare & anchor before the little Church with the crosses (which stands below in the sand-hills) in 5, 6, 10 or 12 fathom, so neere as you please. Men may also turn out at this same channell with indifferent ships or Barcks, but they must take good heed, it is not there very broad.

For to sayle alongst by Sipiona.

There goeth in also a channell by the land of Sipioenen or Chipiona, for to find it, you shall sayle in within two cables length neer by the foresayd land, untill that you be within the second shoale, then you must edge somewhat of from the land, untill you come upon the foresayd marks of the Cloyster and the great Tree, then you must run in alongst upon them, as is before taught. The River of S. Lucas is easy to know, by the Rooduyn, or red sand-hills which lye to the westwards of it.

Cales.

From Sipione to Cales Males, s. e. 9 leagues. Cales is knowne by the mountaine of Granade, when that is east northeast & e. & by north from you, sayle then right in with it, and you shall not sayle to fall rigt bfore Cales. At the poynt of Sipiona lye many rocks above water and betwixt the poynt of Sipiona Cales. Foure leagues from Sipiona lyeth Rotta, there shooteth of a great ledge of rocks from the poynt.

For to sayle in to the Bay of Cales. Los Puercos.

Hee that will goe into the Bay off Cales, let him run in right with the Rockes which lye on the west-side of the Bay, being called los Puercos, and within two cables lengts in all alongst by them in 6 or 7 fathom, untill be come before the town of Cales, and anchor there so deep as

he pleaseth, in 8, 10, 12 or 16 fathom, the fareway lyeth in most east southeast and southeast and east.

. Diamant. There lyeth a rock under water, called the Diamant, about n. n. e. and n. e. and by north from the Puercos, a great half league. When Saint Catharins Chappell upon the north-land is e. n. e. from you, then are you thwart of that rocke, there is at halfe flood 3 fathom water upon it,

Marks of the Diamant. the marks of this rock are these: When Mary Church commeth over the north-end of Cales, (that is a Cloyster which standeth without Cales) there stand also a house upon the hill, where men goe alongst by, when they goe to Sheres, when that house commeth over the Chappell which standeth upon the water-side: to the westwards of porte Marie: when these markes come together one in the other, then you should sayle upon the foresaid rock, there is upon the shoalest of it at high water, three fathom and a halfe water upon it. But set the two high hills which are to the southwards of the way of Sheres, that they bee a little asunder, & that they doe not come one in the other, then you cannot sayl upon this rock. The Puercos rock lye from the north-poynt of Cales about halfe a league. He that lyes before Cales in the road, hath Puntall south from him, or there abouts, according as he lyeth neer to Cales. But to the southwards of Cales lyeth a Rock, come not neerer that then in 7 fathom.

The Bay of Cales is wyde & broad, men lye there in 5 & 6 fathom, the northwest wind commeth there open in. If any man therefore would goe further in behinde Puntall, let him goe in s. e. betwixt the poynt of Port Real & Puntall, and run up about the poynt of Puntall, there men lye land-lockt for all windes: there men may lay their ships dry a ground for to make cleane. He that will goe into the Creeck, must take a Pilot, & run up into the water of Port Real leaving the little Island on the larboard side, and then Herodes Creeck shall open it selfe, and there hee must sayle up keeping the middle of the Channel, till he come before the Salt-heaps.

To sayl from Cales to the Strait. For to sayl from Cales to the Strait, men must goe away s. & s. & by e. to the cape de Travalgar and then they shall run far enoug without the bancke or roks wich lye of s. e. from Cales. From the poynt of S. Sebastian to cape de Trafalgar, which is the north-poynt of the Strait, on the west-side it is s. s. e. 10 leag. About 2 leag. to the northwards of the Cape, lyeth Conil, there is a fayre sand-bay, where men may anchor in 12, 13 and 14 fathom clean ground.

Hee that desireth to sayle into the Straite of Gibraltar comming from Cales, let him goe from the poynt of S. Sebastian, which is the westermost-poynt of the Island Cales, s. & by e. s. s. e. towards the cape de Trafalgar, untill he be a good wayes without the land for to avoyd the Spanish coast which is fowle: there lyeth of w. & by s. from

Riffe of Tariffe. the Island Tariffe, a banck of stones 2 leag. or 2 leag. & a halfe into Sea, where upon is 8, 9 or 10 foote water, when it bloweth hard, men may see it break. The foresayd poynt of S. Sebast. & the cape de Trafalgar lye 10 leag. asunder.

When you are then somewhat without the cape de Trafalgar, & set your course s. s. e. and s. e. and by s. then you shall fall with the land of Barbary coast, within the cape de Spartell, about thwart of Tanger, lying in a great

Tanger. bigt and sand-bay. Upon the west-poynt of this bay of Tanger, standeth a castle somewhat high, and yet somewhat higher upon the high land, standeth a little watch-tower: but to the eastwards of Tanger standeth also an old ruinous watch-tower, whereby Tanger is very easy to be knowne. From Tanger to Ape-hill, the coast lyeth most e. n. e. & e. and by n. is te right course for to sayle through the Strait. If you will sayl into the Strait by night, then keepe to the Barbary coast, wich is very cleane & there you can take no hurt: but the Spanish coast is fowle, as is beforesayd. They that will sayle alongst by the Spanish coast, they must goe close alongst by the shoare, & runne throug betwixt the Island Tariffe & the foresayd fowle grounds, close alongst by the Island, or els must keepe farre of from the Island, for to runne alongst without the shoals; but in the middest, neere a like unto both lands it is best.

Three leagues to the eastwards of the Island Tariffe lyeth the poynt of Cabrita, being the west-poynt of the great Bay of Gibraltar over against the hill of Gibraltar: a little to the westwards of it, is a good road for a n. e. wind, in 12, 10 & 8 fathom, not farre from the shoare, thwart of a great rock, which lyeth close upon the water side, a little to the eastwards of the fire-tower: A little to the westwards of that fire-tower which standet upon the foresayd poynt, is a fayr sand-strand, betwixt the two Towers there you shal lye smooth for the western grown Sea. Cape de Cabrita.

At Gibraltar is a fayre Bay almost like a haven: If you will anchor in the Bay of Gibraltar, then sayle so farre into it, untill that innermost-poynt off the hill of Gibraltar, doe stand east from you, thereabouts it is deep 5 or 6 fathom, & clean ground; towards the Mil it is shoal water of 3 fathom. Men lye there in the Bay land-lockt for a w. wind, a s. wind commet from the poynt of Gibraltar hill, but a s. w. wind that bloweth there open in. From thence are brougt good Wynes.

When you will sayle from the road of Gibraltar with an easterly wind, it is good to beare up somewhat before the wind towards the west-shoare, & then fort out alongst by the lee shoare, for the easterly winds do fall with such whirlings and foreflaughes from over the high land of Gibraltar, that you shall behardly able to get out of the Bay alongst by the high land. When you come from the east-wards, and will sayle out troug the Straits, and that you are somewhat neere to the Spanish coast, then you must bee very carefull, for that you bring the hill of Gibraltar, against the high land of Barbary, and in regard the land to the northwards of Gibraltar-hill is low, it seemeth (to loock to) to bee nothing els, then as if there where the opening of the Straites. It hath here tofore happened, that some which have so mistaken it, have sayled into the bay, thinking it to be the opening of the Strait, and so have lost their ships. Therefore it is very needfull that men take great care not to mistake them selve to the hill of Gibraltar, and if men do take heed of it, it is easy to beknowne. Bay of Gibraltar.

Estepona lyeth five leagues to the eastwards or to the northwards of Gibraltar, betwixt them both stand divers fire-towers upon the coast, there is clean ground for to anchor. If you will anchor to the eastwards of Gibraltar, by the next Tower of Gibraltar, then bring Gibraltar s. s. w. from you, and anchor in 25. fathom, there is cleane ground and black-sand, but if you will anchor by the second fire-tower, there is a valley, and there you may fetch water, and anchor in 20 or 22 fathom, there is a valley, and there is also clean ground, and better lying for to set sayl with easterly winds, for those that are bound out of the Strait. Before Estepona, men may anchor in 14 fathom, that is a place for to lade Fruyte & Wynes; 5 or 6 leagues to the eastward of it lyeth Marveles, betwixt them bot stand 5 watch-Towers upon the coast.

From Gibraltar to Marveles the course is n. e. and by n. distant 12. leag. if you will anchor at Marveles, then you must look out for two Packhouses which stand upon the stand and a great square watch-Tower close to the east wardes of the foresayd Packhouses: bring the gate of the towne so, that you may see throug betwixt the Packhouses & the watch-tower, & anchor there in 9 or 10. fathom. Rigt before Marveles, the ground is not cleane. About a shot of a Cast peece to the westwards of the Town, men may fetch fresh water. Marveles.

From Marveles to Fangerola it is 5 leag. e. n. e. betwixt them both stand also 5 watsch-towers. Fangerola is a Castle and had a fayre sand-bay, there is good anchor ground in 7 or 8 fathom, a flat rising ground, men may lye there land-lockt for a w. s. w. wind. Fangerola.

From Fangerola to C. de Mol, the west-poynt of Mallaga, the course is forth e. n. e. 2 great leagues, but from the west-poynt of Mallaga to the Town of Mallaga, the course is n. e. and n. e. and by e. 4 leagues, it is there betwixt them both a fayre strand, where men may anchor all alongst in 10 or 12 fathom. Cape de Mol.

Mal-

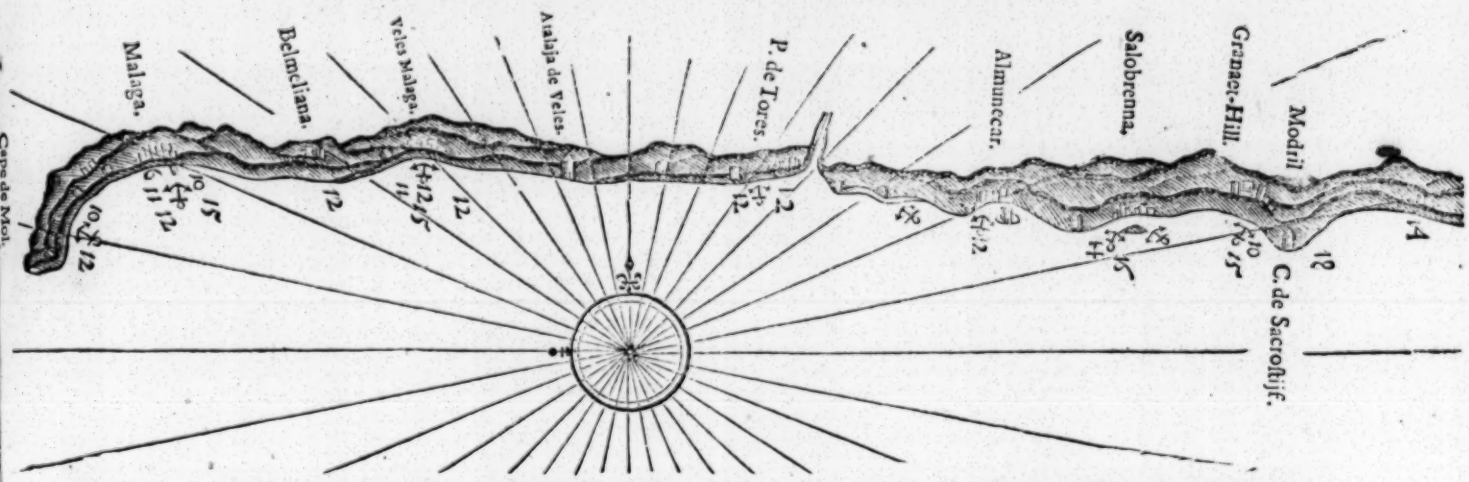
Mallaga is knowne by these markes: There standeth a Castle to the eastwards upon the high land, & there come two walles downewards towards the sea to another castle which lyeth by the water-side. Before that sane Castle is nou the road, that which was wont to be the right road, is now altogether spoyled by casting of ballast.

If you will anchor in the road before Mallaga, then anchor in 10, 11, 12 or 14 fathom, thwart of from the head, if that the head come to lye from you north and by east, there is very good ground, the anchors hold there well, also men lye there out of danger for the Moores.

Velez Mallaga lyeth from Mallaga east & by n. distant 7 leag., betwixt them both men may anchor all alongst by the shoare. About a leag. to the westwards of Velez Mallaga standeth a little castle; before it is good anchoring in 10 or 12 fathom. By the next Tower, to wit, the next to the little castle, there is fresh water to be gotton on te land. Velez Mallaga.

The Towne of Velez Mallaga lyeth about a league within the land; but upon the strand standeth a great Packhouse appearing like in castle.

The Coast of Spain from Malaga to Modrill.



If you will anchor at Velez Mallaga comming from the westwards, then you must give the west-poynt a birth; there lyeth of a bancke a good wayes into sea by the watch-tower which standeth below, to the westwards of Velez Mallaga: But if you run alongst by the shoare in 10 or 11 fathom, without comming neerer the shoare, then you can not take any hurt in the foresayd banke or riffe. When as the towne of Velez Mallaga commeth a little to the eastwards of the foresayd Packhouse or Tower, which standeth upon the strand, then anchor in 12, 10 or 8 fathom, it is there all cleare and cleane ground.

From Velez Mallaga to Almunecar, the course is east, 15 or 16 leagues, betwixt them both it is all cleane Coast, men may anchor there under alle the poynts which lye betwixt them both.

Two great leagues to the westwards of Almunecar lyeth a poynt; whereupon standeth a fire-tower, under is a good road for a west wind.

If you wil anchor at Almunecar, then anchor to the westwards of the rock, where the little chappel standeth upon the 12 fathom, there is good ground, and shall lye there landlokt for an east and west northwest wind.

Salobrena lyeth from Almunecar 4 leagues to the eastwards, that is a little Towne with a little Castle, and licht upon a hill a little about the east-poynt of Almunecar, and right before Salobrena lyeth a little Island, he that will anchor there must anchor to westwards of it, there he shall lye landlockt for a northeast wind, & also for a west wind, then he shall have succour of the east-poynt of Almunecar. Men may also well anchor to the eastwards of that little Island, but to the westwards of it is the best road, there lye also all the ships, they may anchor there in 14 and 15 fathom, clean soft ground, in 16 fathom they shall lye somewhat to farre out. Men may (if need so require) run throug betwixt the foresayd little Island, and the maine land, betwixt them both there is about 16 or 17 foot water, and the little Island is round about clean, so that men may run very close also alongst by it without feare.

Two great leagues eastwards from Salobrena in the same bight, a half leag. from the sea-side within the land lyeth Modrill, which hath two Churches and some trees, thereabouts upon the water-side standeth a square Tower.

If you will anchor at Modril, then anchor before the foresayd square Tower, which standeth upon the water-side in 12 or 13 fathom, so that you may see the little Tower upon the east-poynt even without the other poynt, there is cleane ground, men lye there land-lockt for an eastwind, but a s. e. and a s. wind make there (like as at all places on these coasts) a lee shoare. A little to the eastward of Modrill lyeth the poynt, called C. de Sacrostijf.

The Coastes of BARBARYE.

FOR to sayl out of the Bay of Gibralter to Tetuan, then run over south & by east, about close by the poynt of Seuta, especialy with a westerly winde, you should otherwise be carried away so with the current, which then commonly runs to the eastward, that you should fall to farre to the Leewards. Comming then about by the poynt of Seuta, you shall see out a head a blak poynt called C. Porkes, lying south from the poynt of Seuta. When men lye in the Bay of Gibralter, they may see the foresayd C. Porkes alongst over Seuta: which is a poynt very easy to be known, fall towards that poynt, and with a west winde luffe up so neere as you can. When you come about that poynt, then you shall begin to see Tetuan, which lyeth up against the high land, a great league within the land: run then so far to the southwards, untill that the east-end of the towne come right over a little round hommok, which is upon the high land within. In the middest of the towne standeth a black tower, & in the innermost land of all within, lye three little hils, which doe (as it were) looke over the outermost inner-land, bring the three little hills over the foresayd black tower, and anchor then so farre from the shoare that the first little hill of the high land to the southwardes of Seuta, towards cape Porques, come a little without cape Porques, there it shall be sixteen fathom deep, and good soft ground. If you anchor otherwise then upon these foresayd marks you shall have bad, stony and sharpe ground. It hath happened, that some ships have anchored there, but their anchors fall so into the rocks, that they could not weigh them again, but must hew of their cables, and leave their anchors behinde them. Therefore if you come of from the poynt of cape Porques, then be carefull that you bring the foresaye first little hommock (which lyet a stearn of you in the bight of Seuta to the southwards of Seuta) a little without the cape Porques, and so keep sayling to the southward, and keepe heaving of the lead continually without ceasing untill that you get the soft ground so soone as you shall feele it, let then presently your anchor fall, for the place where the soft ground is, is not two cables length in compasse great.

Cape Porques. Markes of the Roade before Tetuan.

Tetuan lyeth from Seuta about sixe leagues, and three or foure leagues to the southwards of it lyeth a poynt, called cape Tetuan, where upon standeth a tower. He that hath never been at Tetuan, might easily be mistaken by that poynt, taking it to be care de Porques, the soner because that some say that Tetuan at least nine leagues to the southwards of Tetuan. It hath happened that ships have sayled unto this poynt, and have so runne past Tetuan, thereforet it is best that men goe not to farre from the shoare either by night or by day for to get the cape Porques certainly in sight.

Cape Tetuan.

The Bay of Tetuan betwixt the cape Porques and cape Tetuan, is a sand-bay altogether of sand-strand with low hommockes here and there upon the sea-side, which a farre of seeme as if they where ships, but the ground thereabouts is altogether foule, except such a place as before is sayd. Betwixt the cape Porques and Seuta it is also a fayre sandstrand; but thwart of it is all good ground.

Arzila.

The

The coast of Barbarye in the Straite of Gibralter, lyeth from Seuta to cape de Spartell w. and by ſ. and w. ſ. w. 8 or 9 leagues. But the cape de Spartell, and cape de Trafargar on the Spaniſh ſide, lye n. & by w. and ſ. & by e. 8 leagues aſunder.

From cape de Spartell to Arzila, the coaſt lyeth ſ. and by w. 7 leagues, betwixt them both alongſt the Sea-ſide, it is all lowe land, with ſome poynts & high land within, with a white ſandy-hilly ſtrand. A little to the ſouthwards of the poynt of cape de Spartell, men may anchor for eaſterly windes in 12 or 13 fathom, cleane ſand-ground, but ſo ſoone as the winde doe ſhift to the weſt they muſt be ready to get under ſayle, leſt they be in bayed upon a lee ſhoare.

About a league to the ſouthwards of the cape lyeth a little Hommock upon the low land, by the water ſide, which ſheweth (in ſayling by) like a broken ſchonce or caſtle.

Arzyla is a little walled Town, lying upon the water ſide, & hath a little bard haven, which men doe ſayle into at two places throug a row of Rockes, which lyeth before it, the northermoſt channell is the deepeſt, but both of them are not fit but for ſmall ſhippes. Being come within the roks, men doe anchor betwixt the Town & the Rockes.

From Arzyla to Alarache, the coaſt lyeth alſo ſ. and by w. 8 leagues, it is altogether a cleane coaſt with ſome Rocks on the ſhoare, the land betwixt them both is ſomewhat higher then betwixt Arzyla & the Cape with high land within. About an Engliſh mile to the ſouthwardes of Arzyla ſtandeth a Tower. & ſomewhat further to the ſouthwards, upon the high land ſtand ſome little houſes, but men cannoth well ſee them, except they ſaile cloſe alongſt by the coaſt. Betwixt Arzyla, lyeth on the Sea-ſide a high white cliffe, which is very eaſy to beknown, betwixt that cliffe and Alarache ſtandeth upon the high land a very high Tree, with ſome other Trees by it, when men come from the northwards alongſt by the ſhoare, that great Tree ſeemeth to be a Tower, yet ſomewhat to the ſouthwards ſtandeth another great Tree, but not ſo great as the other: when men begin to come neere to Alarache, or els by the ſouthermoſt great Tree, then the foreſayd greateſt Tree doth hide it ſelfe behinde the land. Theſe are all very good marks for to known this coaſt by, betwixt theſe two places.

Alarache lyeth with a great caſtle upon the ſouth-poynt af a River, which is very ſhoale & crooked, the north poynt is a low poynt going flat of, & within it, on the north-ſide of the river ſtandeth alſo ſome buildings. Before the River lyeth a barre of Quickſand, which lyeth of from the north-poynt, where ſhips may goe in over with a ſpring-tyde, through a Creecke, els it is but for Barkes & Friggats: men may anchor before it is in the Roade in 16, 17 and 18 fathom.

Alarache is under the command of the King of Spaine, and is little or nothing uſed either by Engliſh or Dutchmen.

He that ſayleth alongſt this coaſt, muſt not come very cloſe to the ſhoare, un leſſe where with a hard Levand, or eaſterly winde, with calm weather there goeth ſometimes a very great grown Sea out of the w. or n. w. ſo that ſometimes men can hardly get of from the ſhoare.

From Alarache to Old Mamora the coaſt lyeth ſ. and by w. & ſ. ſ. weſt betwixt 7 or 8 leagues, it is low land with ſand-hills with few places that are eaſy to bee knowne, all alongſt even to Mamora.

He that commeth out of the Sea, and falleth with the land, here on this coaſt, ſhall perceive little know ledge of the land, unleſſe hee fall with ſome of the inhaited places. This Old Mamora was wont to be a haven, but is now altogether caſt to of de Sea.

Of the Tydes and Courſes of the Streames.

Before the Condact on the coaſt a ſ. ſ. w. and n. n. e. Moon maketh hig water.

Before Palos Moguer & Wolves maketh full Sea a ſ. & n. Moon.

Before the River of S. Lucas, & at Cales before the bay maketh full Sea a ſ. w. & by ſ. & n. e. and by n. Moon.

At Cales in the Bay maketh high water a ſ. ſ. w. Moone.

The Ebbe falleth without the Puercos to the ſouthwardes towardes the Straith, & the Flood towards the land to the northwards: but for the moſt part, the Flood falleth thwart in to the land, about the havens.

In the narrow of the Strait maketh high water a ſ. w. and by ſ. Moon. The currenth runneth more to the weſtwardes then to the eaſtwards; when it is faire weather there goeth commonly 4 houres flood to the eaſtwards, & 8 hours Ebbe to the weſtwards, but the moſt part of the time according as the winde is, & at ſometimes the current runneth ſo ſtrong, that it rippleth as if there where ſhoals.

Courſes and Diſtances.

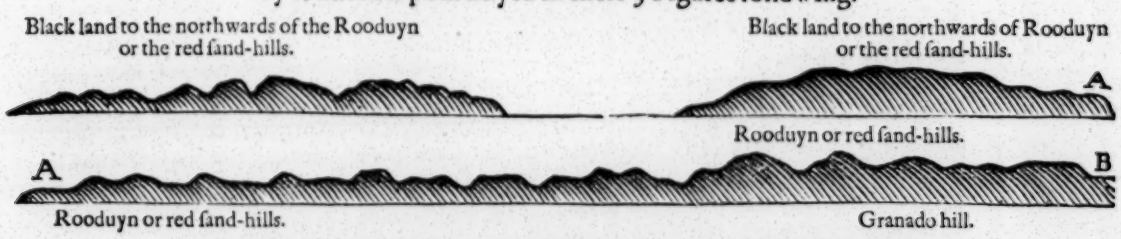
From Ayemont to Leepe eaſt and by north	7 leagues
From Leep to Saltees or Palos e. & e. and by ſouth	7 leagues
From Saltees to the river of S. Lucas, or Sipiona ſ. e. & ſ. e. & by e. 8 or 9 l.	
From S. Lucas or the poynt of Sipiona to the poynt of Cales, the courſe is ſoutheaſt	9 leagues
From Cales to the poynt of the Strait ſ. ſ. e.	10 leagues
From Cales to the great Canaries ſ. w.	240 leagues
From Cales to the Iſle de Madera w. ſ. w.	200 leagues
From C. Trafalgar to Tariffe, the courſe is ſ. e.	4 leagues
From Tariffe to the poynt of Gibraltar e. & by n.	5 leagues
From the poynt of Gibraltar to Marveles n. e. by n.	12 leagues
From Marveles to Fangerola e. n. e.	5 leagues
From Fangerola to the weſt-poynt of Mallaga e. n. e.	2 leagues
From the weſt-poynt of Mallaga to the Towne of n. e. & n. e. & by n. 4 l.	
From the poynt of Gibraltar to Mallaga n. e.	23 or 24 leagues
From Mallaga to Veles Mallaga e. & by n.	7 leagues
From Veles Mallaga to Almunecar, eaſt	15 or 16 leagues
From Almunecar to Salobrena, eaſt	4 leagues
From Salobrena to Modril e. & by n.	2 leagues
From Modril to C. de Sacraſtyf e. n. e.	one league
From C. de Sacraſtyf to Caſtel de Fierro e. and by n.	4 leagues
From Caſtell de Fierro to Adera eaſt.	8 leagues
From Adera to Almeria n. e.	5 leagues
From Almeria to cape de Gat ſ. e. and by e.	5 or 6 leagues
From the poynt of Gibralter to cape de Gat e. and by n.	66 leagues
From C. de Spartell in Barbary to the poynt of Apehill, e. n. e. 8 leagues	
From Apehill to the poynt of Seuta ſ. e. & by e.	2 leagues
From the poynt of Seuta to the road of Tetuan ſouth	5 or 6 leagues.

Heights.

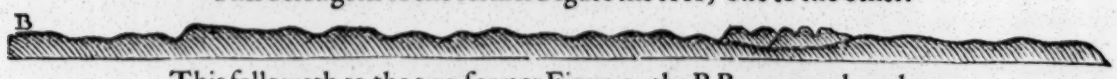
The coaſt of the Condact lyeth in	37 degr. & 15 or 20 min.
The Iſland Cales in	36 degr. 30 min.
The middeſt of the Strait of Gibraltar in	36 or 35 degr. & 50 min.
Cape de Spartell lyeth in	35 degr. 32 min.

How theſe Lands doe ſhew themſelves at Sea.

The land betwixt Wolves and the River of S. Lucas, ſheweth it ſelfe when you ſayle alongſt by it like as is pourtrayed in theſe 3 Figures following.



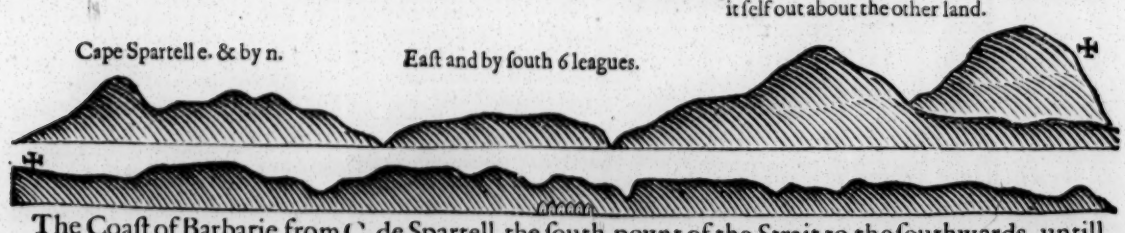
This belongeth to the former Figure the A A, one to the other.



This followeth to the two former Figures, the B B, one to the other.



When you ſayle towards Cales, and the mountaine of Granado commeth to ſtand eaſt from you, then it ſheweth it ſelfe in this forme.



The Coaſt of Barbarie from C. de Spartell, the ſouth-poynt of the Strait to the ſouthwards, untill paſt Alarache ſheweth like as it is portrayed in the 2 Figures, when the Cape de Spartell is eaſt and by north from you about 8 leagues.

The

HISPANIA.

PORTUGAS

BARBARI

Sirtes

Lisbona

Porto Santo

I. Madera

Salvages

Groot Canaria

I. Tener

Gomera

Palma

Ferro

Graciosa

I. Forteventura

Terceira

Os Ilhos S. Antone

I. S. Georgy

I. del Pico

Fayal

I. Cuerro

I. de la Flores

S. Michiel

S. Maria

Formigas

Vegia

Walvis

De Cust van BARBARIA,

Gualata, Arguyn, en Genehoa van Capo S. Vincent tot Capo Verde

't Amsterdam by Jacobus en Casparus Lootsman Boeck-verkoopers op 't water inde Lootsman

A F R I C A.

Gualata Regio.

Arguyn Regio.

Hoden.

GENEHOA.

GAMBIA.

Tropicus Caneri.

C. Blanco

C. Verde

I. de Bonavista

I. de Sal

I. de Mayo

I. de S. Iago

I. d. S. Nicolas

I. de Fuogo

I. de Brava

I. de S. Lucia

I. de S. Vincent

I. de S. Antonio

5 Palmas

Duytsche Mylen 15 in een graed

Spaensche Mylen 17½ in een graed

Eng: en Fr: Mylen 20 in een graed

Cust van
BARBARIEN
Van Out Mamora tot aen
Capo Blanco.

Hoogen toorren
Casba
Salee
Mamora
Out Mamora
Tooren
Verwelkom
De Silver arm des Zeemans
Hoogh
Hedale
Cloof
16 18 25 30 35 25 25 24 26 26 26 29
30 60 60

Cust van
BARBARIEN:
Van Capo Blanco tot Capo de Geer.
't Amsterdam
By Iacob Theunisz, boeckverkooper
op 't water inde Loots-man.

C. Blanco
Roeclippen
La Casa Cavalgero
Cloof als sy
Hedale
Emindra
C. Cantin
Rd
Saffia
Water plaets
Noord hoeck
Zuyd hoeck
I. Mogador
8 14 16 18 20 30

Duytsche mylen 15 in een graet
Spaensche mylen 17½ in een graet
Eng. en Fra. mylen 20 in een graet

Steyle cust
Lyons
Asamor
River
Malagam
Secarif
Syde verwillen Staet
C Blanco

Duytsche mylen 15 in een graet
Spaensche mylen 17½ in een graet
Eng. en Fra. mylen 20 in een graet.

Mes
Mesa
S. Cruz
Christenen pack huysen
Moorsen casteel
Boere marckt
C. de Geer
C. de Tafelaer

The second Part of the New

LIGTNING COLUMNE
OR
SEA MIRROUR.

The fourth BOOKE of the

WESTERNE NAVIGATION.

CONTAIGNING

The Deſcription of the Sea-Coaſts, from Barbarie, Gualata, Arguyn, Genehoe and the Flemiſh and Canary Iſlands together, from the Straigt of Gibralter to Cabo Verde.

The firſt Demonſtration,

Where in are ſheweth

The Coaſtes of Barbarie, from Old Mamora to Cape de Geer together, with the Flemiſh Iſlands.

Mamora.

FRom Old Mamore to Mamora, the coaſt lieth alongſt ſ. & by w. & ſ.ſ.w. 7 leagues. Before Mamora is a high broad ſand-ſtrand, & is not eaſy to know, when you are ſomewhat of the land. The beſt know ledge thereof is this: when you come from the northwards alongſt the ſhoare, you have all high land within, that you come leeſe when you come before Mamora, & when you come from the northwards, you cannot ſee the river of Mamora open before you bee paſt it, by the reaſon that it lieth into the eaſtwards, & the north-point is low. When you come ſomewhat cloſe by the ſhoare, you ſhall ſee upon the hig land in the Caſtle of Mamora (which the Spanjards have built there for the defence of the place) a very high maſt or ſtake, which you may ſee indifferent far of & when it is cleare weather you may ſee alſo the hig thik Tower of Salley to the ſouthwards ſtand againſt the land. Before the river lyeth a Barre which with a ſpring hat 16 & 17 foote, and ſometimes more water, the Barre is oftentimes altered by the ſea. In the ſpring it lyeth in commonly e.ſ.e. and thereabouts. In the later part of the yeare it lyeth in more eaſterly by the caſting up of te ſea out of te north. In the Summer the windes blow alongſt the coaſt, the moſt part of the time out of the north, which cauſeth that the current runneth there to the ſouthwards, and in the Winter they blow much & ſtrang out of the ſ.w. and ſ.ſ.w. In the winter men muſt be very careful to get of, betimes when the winde beginneth to come to the ſouth or ſ.e. then it is time to get of, for then commonly it ſhifteth to the ſ.w. & w.ſ.w. with foule weater, but when it commeth about againe to the w.n.w. or n.w. then it is like to be good weather againe.

The roade before Mamora is about a league from the land in 18 and 20 fathom, there is clean ſandy-ground.

Road before Mamora.

From Mamora to Salley the coaſt lyeth ſ.w. & by ſ. & ſ.ſ.w. 6 leagues, betwixt them both it is low plaine land and ſandy ſtrand, with double land within, which is ſo even and ſmooth, as if it where planed over. From Mamora not halfe wayes to Salley, the ſtrand reaſeth, and from thence forth to the ſouthwards it is a ſhoare all of black ſteep ragged rockes with litle hills, ſo that men cannot judge (when they are ſomewhat of the land) that it is double land within, by the plaines of it. When you are a league or two paſt Mamora, then you may ſee very plaine the high thick Tower of Salley, and when you ſee the foreſaid rocky ſhoare, you may be ſure that you are paſt Mamora. That ſteepe rocky ſhoare continueth from thence, untill paſt Fedalle, yet betwixt Fedalle and Salley is here and there a place of white ſtrand, betwixt the rockes, but to the northwards of Salley it is not ſo, but nothing elſe then perfect rock.

The towne of Salley hath a little Tower, & lyeth upon the north-ſide of the river, which is a low plain point of ſand. The Caſtle hath little Tower, & lyet over againſt upon the ſouth-point of the river, which is a hig rocky point. There goeth a wal round about the hig thik Tower, & lyet upon a poynt on the ſouth-ſide within the River. Before the River is a Barre, which oftentimes with ſtorms out of the ſea doth alter & ſhift, & is caſt to, ſometimes the channell runneth by one of the two poynts, & ſometimes againe rigt in the middeſt of the rivers mouth. He that wil anchor before Salley, let him bring the foreſayd hig thick Tower (which ſtandeth within on the River) on the poynt of the Caſtle, to wit, over the ſouth-point of the River, which ſhal then ſtand from him neere about ſ.e. & anchor there in 30, 28, 24, 20, 18 or 16 fatum, ſo neere or farre of as he will, there is clean black ſandy ground, nevertheleſſe that the ſhoare there abouts is ſo full of rocks & ſtones. Being come to anchor men muſt ſhoot a ſhot to cauſe the Mores to come of. From Salley to the Iſland Fedalle the ſhoare lyeth alongſt ſ.w. & by ſouth 9 or 10 leagues, betwixt them both lye here and there in the ſand-ſtrand, long black rocks (as before is ſayd) ſo that oftentimes men might take it to be Fedalle. The beſt markes for to know Fedalle by, is a wood of trees about a league to the northwards of Fedalle, which ſtandeth below upon the land, and ſheweth like a barne. When you come ſayling alongſt cloſe by the land, you ſhall ſee it above upon the land, but when you are ſomewhat of from the land, then you ſhall ſee the land within above the wood of trees (or Barne as men doe commonly name it for the likeneſſe of it) alſo there lyeth a little round hommock about 4 leagues, to the northwardes of Fedalle, which you ſhall ſee above the reſt of the land, when you are ſomewhat of from the land, but when you come cloſe by the land, it hideth it ſelfe alſo behinde the double land. The coaſt betwixt Selly and Fedalle, is very plain and ſmooth double

Fedalle.

land, ſo that there is not another ſuch hommock more betwixt them both, as that foreſayd hommock, and in regard the coaſt there abouts is altogether ſo plain, without any places eaſy to be knowne, therefore men muſt take the more ſpeciall heed unto ſuch ſmall markes, for not to faile paſt the place where they are bound unto.

Road under Fedalle. Betwixt the foreſaid Barne or wood of trees and Fedalle, ſtandeth alſo a ruinous little Towne fallen downe, in a roug wood, called Monſor, when you ſayle alongſt cloſe by it, you ſhall ſee yet ſome peeces of walles of it.

To the ſoudwards of Fedalle the land is againe higher, & where the hig & low commeth together it dot make a cliſt, thereby the Iſland of Fedalle is eaſy to be known, when that clift is ſ.ſ.e. from you, then is Fedalle thwart of it alſo ſ.ſ.e. from you. If you wil goe into Fedalle, then run rigt with the foreſaid Barne, or wood of trees, until you come within a leagues, or ſomewhat neere to the land, and then alongſt by it, and ſo you ſhal not miſſe the Iſland Fedalle, but runne in betwixt it and the maine land, when as you come by the north-point of Fedalle, then anchor betwixt the ſtrand & the foreſaid north-point, but much neerer the Iſland Fedalle then the ſtrand in 6, 7 or 8 fathom, ſo that you come to lye with your ſhip ſo farre in, that the foreſaid point of the Iſland doe lye n.n.w. from you, then lyet the foreſaid Barne e.n.e from you, & Monſor a handſpikes lengt to the northwards of the Barn or wood of trees; you may alſo anchor in 12 fathom, ſo that the point of Fedalle lye weſt and ſouth from you.

This bigt within the Iſland Fedalle, is a very bad place to lye in, for altoug you lye there ſo, that the point of the Iſland lye n.w. & n. & by w. from you, & with a cable on the Iland, nevertheleſſe the grown Sea commeth ſo hard rowling in about the point of the Iſland (when the winde is weſterly) that you migt rather deſire to lye in the open Sea, then within the Iſland. From the nord-point of Fedalle ſhooteth of a ledge or riff of roks a Muſket ſhot into ſea, the moſt of them lye hig above water; within the Iſland it is very flat towards the ſtrand, the bay on the land is a faire ſand ſtrand, there men may get ballaſt from the ſhoar, but they muſt be very careful to ſtand upon their guard, for there are dangerous people.

Depths and gronds about Fedalle Before Fedal, to wit, to the nordwards of it, hwart of the wood of trees, & alongſt to Salley, it is al ſhould water a leag. or two from the land, al alongſt that diſtance it is not deeper then 23, 24 & 25 fat cleane ſand-ground, twart of into Sea from Fedal it is alſo of the ſame depth, but foule ground.

He that will trade at Fedalle muſt anchor ſomewhat farre in, for they have there no Boat, men muſt fetch the Moores aboard with the Boat.

Upon the nord-point of Fedalle lyeth a hig hommock, which ſhewet far of when men come in, as if it were a caſtle falne down, but it is nothing elſe then rocks. At the ſouth end of Fedalle men may goe over on foot at low water to the maine land, but at hig water the Sea watheth throug at two places, it floweth there 7 or 8 fathom up & down.

Three leagues ſ. w. & by ſ. & ſ. w. from Fedalle lyeth an old ruinous town fallen downe cloſe upon the ſtrand called Anafee. Anfee, it is a long town with many Towers, amongſt the reſt one hig thick Tower allmoſt like the Tower of Salley, but men muſt be indifferent cloſe by it before you can ſe it. When you are thwart of Anafee, you may yet ſe the wood of trees to the nordwards of Fedalle, which ſtandeth then to ſe to from far as a faile in the water, 2 leagues to the ſoudwards, (or rather to the weſtwards) of Anfee, or Anafee, is a ſteepe point with red cliffs, which ſeem a far of as if they were houſes ſuch ſportos men ſhal find at divers places on the coaſt.

Azamor From Anafee to Azamor the coaſt lyeth ſ. w. & by weſt weſterly 18 leagues betwixt them both lyeth another fallen place called Liones. Azamor hath a point lying out on the eaſt-ſide, when you come ſailing alongſt the ſhoar from the nordwards, Azamor lyeth then about or behinde that point upon the ſtrand, but ſtandeth hig. A little paſt Azamor lyet a river, & thereabouts are ſome Towers in the low land.

Maſagam. Three little leagues to the weſtwards of Azamor lyet the town of Maſagam, on a white ſtrand cloſe by the Sea-ſide this town is inhabited by the Portugals, of Spanjards, it hath no Towers, and ſheweth to ſee to of at ſea, in white ſpots againſt the land. When you are thwart of from it, you ſhall

Tyro. ſe to the ſoudwards the hig Tower of Tyro (which is a town fallen down about 2 leagues to the weſtwards of Maſagam) almoſt like the Tower of Anfee. A little to the weſtwards of Maſagam, at the weſt-point of the bay, ſhooteth of a ledge or riffe of rocks, almoſt a league of into Sea, where of the rockes at hig water, lye moſt under water, and at low water are uncovered. He that will anchor there and is not well acquainted, muſt take in a Pilot, which may bring him to a place where is good anchor ground, for althoug that it be a great Bay, yet nevertheleſſe there are few places where the ground is clean; but is at many places foule, ſo that but few ſhips ſhould be able to lye there in clean ground, when you lye in the rigt road, then lyeth the eaſt-point of the Bay eaſt and the weſt-point about n. w. from you.

About a league to the weſtwards of Tiro lye a ſteep point when you come from the eaſtwards alongſt by the ſhoare, you ſhal ſe no more land without the point, until that you come near it, wen you begin to get it upon your broad ſide, then there commet out to the weſtwards a great ſquare kliff, which is very eaſy to be known, & is whitiſh with reddiſh ſpots, & ſeemeth a far of as if it were a wall. This point is called after that white point, C. Blanco. About 3 leagues to the weſtwards of this C. Blanco, ſtandeth a little tower upon the hig land, near by a valley called Caſa Cavalgera, & 2 leagues more to the weſtwards lyeth upon the hig land another little houſe called Emindra, but you muſt be cloſe by the land before that you ſee it. From the foreſaid C. Blanco to the C. Cantin, the coaſt lyeth w.ſ.w. & by weſt about 9 leagues. The C. Cantin is an even plaine point, when you are to the nordwards of it, it ſhewet flat towards the weſt & going of towards the Sea: there ſtandet a fire tower upon it, but very ſmal, that ſometimes you can hardly ſe it. If you come from the nordwards, or from C. Vincent, & are bound to Saffia, then ſet your courſe ſ. & ſ. & by eaſt & then you ſhal fal with the land 4 or 5 leag. to the eaſtwards of C. Cantin, or if you ſaile a more weſterly courſe you ſhal runne til you come in the heigt of 32 degr. & a half, & then the C. Cantin ſhal lye due eaſt from you, it is better to fal a litle to the eaſtwards of the C. then to the weſtwards of it, becauſe the winds blow there moſt common norterly. If you fal to the eaſtwards of C. the coaſt lyet there ſ. w. & by w. ſ. w. & it is even plaine land. About 10 leag. to the eaſtwards of the C. lyet that litle town Tyro, with a hig white Tower upon the Sea-ſide, and 5 or 6 leag. more to the weſtwards (betwixt Caſa Cavalgero and C. Cantin) you ſhal ſe a little bigt or Bay, thereabouts lye upon the ſtrand by the water-ſide, great blak rockes, which ſhew as if they where wrakes of ſhips, and then forth alongſt to the C. it is a faire flat ſandy ſtrand. From the C. ſhooteth of a ledge of rocks ſomewhat of into Sea, which men muſt avoid when they ſayle about the Cape.

Cape Blanco. Caſa Calvalgera. Emindra. Cape Cantin.

Saffia. From C. Cantin to the north-point of Saffia, the coaſt lyet ſouth or ſomewhat more weſterly, 5 or 6 leag. betwixt them both it is a ſteep rocky land without ſandy ſtrand, but above upon it plaine & even. A league to the ſouthwards of the C. lyet a riffe or ſhoale by the ſhoare, by ſome called the Goldbanke and lyeth about a league of from the land: at ſometimes of the year there is much Fiſh to be taken.

To the ſoudwards of the Bay of Saffia is hig uneven, and moſt of al double land, but to the ſouthwards of it, it is even & plain, thereby men may eaſily perceive or dicern whether they be to the nortwards of Saffia, or to the ſoudwars of it.

For to anchor in the Bay Saffia. If you wil anchor in the bay or road before Saffia, then bring the north-point (where upon ſtandeth a tower) a little more weſterly then north from you, and anchor then in 18 fathom. Or if you wil anchor further in the Bay, then bring the foreſaid north-point n. n. w. or a litle more northerly from you, & then the northermoſt of the two north-points ſhall be a ſhippes length without the ſouthermoſt or the next unto you, run then ſo farre to the ſouthwards untill that the Tower were men doe land with the Boats (which is a high ſquare Tower ſtanding below even within the wal of the towne) come right over a Tower which is faſt to the wall, which commeth ſo from the Caſtle above to the ſouthwards, ſo that the foreſaid thicke tower below come right over the Haven, betwixt the point where the Caſtle ſtandeth upon the water-ſide, and the Rocks where men goe in betwixt. Or elſe anchor that the high Caſtle of Saffia ſtand & eaſt & by ſoud & e.ſ.e. from you, there it is 16, 17

and

and 18 fathom deepe, good fine ſandy ground. You may alſo anchor ſo farre within in the Bay in 15 and 16 fathom that the north-point come to bee n. w. and n. w. and by n. from you. Theſe are the Summer road, in the Winter men muſt anchor further from the land in 28 or 30 fathom, there the ground is courſe ſand. Men may boldly run in before Saffia into the road by night, there is nothing that they need to feare, which may doe them hurt, but the land.

About 2 leagues from Saffia, lyeth the ſouth-point off the Bay, which is a low point that lyeth out, & 2 leagues to the ſouthwards of it lyeth another ſteep rocky point without ſandy ſtrand. By it goeth in the River Tanſit up into the land unto Marroccos.

From the point of Saffia to the Iſland Mogodor, the coaſt lyeth ſ. ſ. w. 19 or 20 leagues.

Iſland Mogodor. Againſt the northeſt-end of the Iſland Mogodor, there ſhooteth of from the mayne land, a great row of roks; being hard ſharpe rockes, whereof the outermoſt or thoſe that lye next to lye Iſland Mogodor, lye high above water: He that commeth from the northwards, and will ſayle in behind the Iſland Mogodor, muſt runne in betwixt the Iſland & the foreſayd rockes, cloſe in alongſt by the roks. It is there in comming in, betwixt the Iſland & the Rockes 5 fathom deep. Within the foreſayd Roks lye alſo ſome other Rockes on the larboard ſide, which at high water are under water, and at low water are uncovered. When you come to the end of them, you may luffe up about by them towards the mayne land, and anchor there within them in 3 fathom at low water, there is good ſand-ground. But yet nevertheleſſe it is not there very good lying, for by reaſon of the breakingh of the Sea upon the foreſayd rocks, there goeth ſometimes a great Sea, ſo that it is not good lying there with a ſtorme, but further in, under the Iſland it is good lying in 2 fatum & a halfe. From the ſouth-end of the Iſland lyeth of a little towards the mayne land almoſt to the foot ſtrand, & to the ſouthwards of that foreſayd litle riffe, lyeth a bancke of from the mayne land almoſt a league of into Sea. If you will ſayle out at the ſouth-end, then run alongſt by the ſhoare of the mayne land, untill that you be about the foreſayd riffe, & run out then upon your lead along by the bank, & then you ſhal preſently get deeper water, or 4, 6, 8 & 10 fatum, then you may ſaile there were you deſire to be.

Cape de Geer From the point off Saffia to cape de Geer, the courſe is ſ. ſ. w. about 43 leagues, but from Mogodor the ſame courſe is about 22 or 23 leagues. It is there betwixt them both a fayre flat ſand-ſtrand, with double land, which at ſome places is very high.

Cape de Taffalana. About 8 leagues to the northwards of C. de Geer lyeth a point called C. de Taffalana, under which men may ride in good ſand-ground for eaſt & n. e. windes. The cape de Geer is lower then the land to the northwards off it, & falleth to the ſouthwards flat of into Sea, which men ſhal firſt perceive when they come within 3 or 4 leagues of it. About 4 leagues to the northwards of the Cape lyeth a hig Hommocke within the land, and further northwards the land is yet higher; but when you come thus from the northwards near cape de Geer, you ſhall ſee no more land to the ſouthwards of it. When you come to the point you muſt give the riffe a birth that lyeth of from it, and runne about by it, and then forth ſ. e. & by e & ſ. e. 7 or 8 leagues to S. Cruz, and then you ſhall ſee the Moores Caſtle ſtand on the hig land: thwart of it lye a row of Rockes, about a Calliver ſhot in length, elſe it is all cleane & cleare coaſt. For to anchor there in the Bay, runne ſo farre into the Bay, that the foreſaid Moores caſtle ſtand not from you, & the Chriſtians packhouſes n. e. there it ſhall be deepe (to the ſouthwards or the foreſaid row of Rok) 7 & 8 fathom, the north-point or cape de Geer, ſhall then be from you n. w. and by weſt, there is the beſt road. In the Summer time you may anchor nearer to the ſhoare, untill you come in 6 and 7 fathom. When you ſayle from cape de Geer towards the playe or the Road, you muſt be careful to keepe cloſe aboard of the land of the Cape, & run alongſt by it, untill you come before the Caſtle. If you runne farre of from the ſhoare, you ſhall with northerly windes (which blow there much) be conſtrayned to come in n. e. & n. n. e. again for to recover the ſhoare, therefore it is beſt to keep cloſe aboard the high land.

Riffe of Cape de Geer

Road before S. Cruz.

He that ſhould come into the road here by night, muſt not (upon a certain great forfeiture) come nearer the ſhoare then in 12 or 14 fathom.

In this Road men muſt be very carefull and ready with their anchors, the ſmalleſt bower muſt be alwayes laid out for the wind which bloweth of te land, & the other anchor to Seawards. The ſhoot anchor muſt bee alwayes ready againſt a ſtorme (which men may very wel perceive before by the ſwelling or riſing of the ſea) to bring it out in the ſ. w. Alſo it is needfull to keepe the foreſayle to the yard, for to helpe themſelves with it the beſt that they can if it ſhould happen that they ſhould be forced from their anchors.

In this Bay is much fiſh to be taken, when men lye there in the road, they take their turnes to goe out to fiſh.

From the C. S. Vincent ſ. w. & by w. 140 leagues, & from the C. de Finiſterre ſ. ſ. w. & ſ. w. & by ſ. 232 leagues lyeth the Iſland Porto Sancto lying ſ. e. & n. w. upon each-end of this Iſland lyeth a great rock. The road on the ſ. w. ſide, to the eaſtwardes of the ragged rock, before a little haven where men may lye land-lockt with boats.

Porto Sancto. Madera. Serters. The Iſland Madera lyeth from Porto Sancto ſ. w. 16 leag. ſwards from the eaſt-point of Madera, lye three ſmal rocky Ilands, being called the Serters, the northermoſt is the ſmalleſt, & lyeth about a league from the land from the foreſaid point, the ſouthermoſt is the greateſt, & lyeth 4 leag. from the land. He that commeth from the northwards, or from Porto Sancto, may ſaile throug betwixt them & the point of madera, it is there betwixt them broad & wyde, & alſo cleane & cleare every where, onely at tue foreſayd eaſt-point of Madera lyeth a ſuncken rok, where of men muſt take heed.

S. Cruz. At the ſouth-ſide of the Iſland before the towne of Saint Cruz is a good road in 20 fathom, but before Fonſiall is the chiefeſt road for to lade: to the weſtwards of the Towne lyeth a great rock with a troſſe, called the Lion, by it is the beſt lying in 30 or 40 fathom.

At the ſouthweſt-ſide before Maraſilo is alſo good anchoring in 16 or 18 fathom. In all theſe foreſayd places is good ground for to anchor in.

Salvages. Betwixt Madera and Teneriffe lyeth the little Iſland Salvages, to witt, ſ. from the Serters 40 leagues. North from the northeaſt-point of Teneriffe 27 leagues, and n. n. w. from the northeaſt-point of great Canaries, 40 or 42 leagues, if lyeth ſ. w. and n. e. and is about a halfe league long. The ſouhweſt-end of Salvages is foule farre of into Sea, therefore runne rather about to the eaſtwards of it then to the weſtwards. Three or 4 leagues ſ. w. from that point, amongſt other Rockes, lyeth one great Rock which ſheweth a far of like a ſayle. Under the ſoutheaſt-ſide of the Salvages is a good road for a n. w. and weſt wind.

S. Michaels. Madera and the Iſland Saint Michaels lye n. w. and ſ. e. 135 leagues diſtant. At Saint Michaels, the road is at the ſ. w. ſide of the Iſland, when you come about one of the two points, either from the eaſt or weſt, then you ſhall ſee two little towns. Before weſtermoſt, called Punte de Gada, or Punt Alagato, is the road in 20 and 25 fathom.

Punto de Gada.

Before the eaſtermoſt little towne lyeth a little Iſland, betwixt that and the land of S. Michaels it is 5, 6 and 7 fathom deep. Betwixt theſe two little Townes, the Coaſt lyeth w. n. w. and e. ſ. e.

Tercera. From S. Michaels to Tercera, the courſe is n. w. and by weſt 34 leagues. Under Tercera the road is on the ſouthſide of the Iſland, to the weſtwards of the Rockes, rigt before the towne Angra, betwixt two points that lye out, upon each of them ſtandeth a Caſtle for defence of the ſhippes which lye there in the Road, the weſtermoſt of the two points lyeth a good wayes further out to Seawards then the eaſtermoſt, and hath upon the end of it, two very high, called Braſill, when you come out of the Sea, either from the eaſtwards, or the weſtwards, it ſeemeth a farre of as if it where aſunder from the land. Theſe two foreſayd hills upon the point of Braſil, are ſo hig, that in cleare weather men may ſee from thence 16 or 17 leagues farr of into Sea. Upon it ſtand two Pillars, which men may ſee every where in the towne Angra, and a watchman thereby for to keepe watch, and to give them of the towne warning of the ſhippes that come about the Iſland. As many ſhipps as hee ſeeth come from the weſtwards or the ſouthwards, that is,

Angra.

from the Weſt-Indies, Braſill, or the Portingalls Indies ſo many Flags he ſetteth up upon the Pilar towards the weſt, when he ſeeth more then five ſhips, then hee ſeteth up a great Flagge, which ſignifieth a whole Fleet. Likewiſe hee doth the ſame upon the other Pillar towards the eaſt, for the ſhippes which he ſeeth come from the eaſt, from Portingall or from the northwards, ſo that there cannot a ſhippe come thereabouts, but men may ſee it preſently by that token in every corner and ſtreet of the Towne.

For to ſayl in to the road of Tercera.

He that commeth from the eaſtwards, or the northwards and is bound into the Road of Tercera, let him run faire by the land of the eaſt-point, and alongſt by it unto the two little Iſlands, called the Ilheos, which lye a little to the eaſtwards of the road, about a bow ſhot one from the other. Men may run alongſt to the ſouthwards of theſe Iſlands, or to the northwards of them, as they will, and alſo betwixt them both. Betwixt theſe litle Iſlands and the mayne land of Tercera, it is a great cannon ſhot broat, and 15 & 16 fathom deepe, throug betwixt the little Iſland it is 5 and 6 fathom deepe cleane ſandy ground. Somewhat to Seawards of theſe little Iſlands, lye 3 or 4 rockes above water, called Los Frayles. Being pas theſe foreſayd little Iſlands, you muſt ſayle to the weſtwards, untill that you come neare to the foreſayd point of Braſill, a little to the eaſtwards off it you muſt anchor before the Town of Angra in 10 or 12 fathom, or elſe men lay their Sea-anchor commonly in 16, and their ſmaller anchor towards the land in 8 or 9 fathom. Men lye there landlockt for a ſ w. and n. e. and alſo for an e. n. e. winde, but a ſ e. winde bloweth there flat open in. On the weſt-ſide of the point of Braſill is alſo a great ſandy Bay for to anchor in before a village, called S. Martin.

Los Frayles

Three leagues to the eaſtwards of the Towne Angra, lyeth a bight, called Porto Judeo, there the Spanjards landed with their forces when they tooke in the Iſland from the Portingalls.

He that will ſayle from Tercera to Favall, let him ſet his courſe w. ſ. w. to the eaſt-point of S. Georges, which is from thence 10 leagues aſunder. Further, betwixt the Pico, & S. Georges throug to Fayall are 16 leagues, it lyeth moſt w. n. w. through betwixt them and the Iſland Fayall lyeth to the weſtwards of the Iſland of the Pico a great league aſunder of from it.

He that will anchor in the Rayall, let him anchor right before the Village of Fayall in 14 or 15 fathom, there is ſand-ground; but there goeth a hard tyde of Flood and Ebbe.

On the ſouthweſt-end of the Iſland Fayal lyeth a little haven for to ſayle in there, you muſt run in by the ſouthweſt-point, ſo long about by the ſhoare, untill that you ſee the haven open, ſayle alongſt about by the ſouthweſt-point untill that you come in the narrow, betwixt the Rocks which lye of from the weſt-ſide ſo ſoone as you come within the Rockes let preſently your anchor fall in 5 fathom, and bring your hawſers on the eaſt-ſide on land faſt to the pales, which are there made for the purpoſe: the haven is little ſo that men may lye in with no more then with four or five ſhips. Further in it is ſhoale water.

Of the Tydes and Courſes of the Streames.

On the foreſayd coaſts maketh high water a ſouth ſouthweſt and ſouthweſt and by ſouth Moon.

Courſes and Diſtances.

From cape Spartel to cape Cantin it is ſ. w. ſoutherly	85 leagues
From cape Spartel to Madera w. and by ſ. and w. ſ. w.	200 leagues
From cape Cantin to Madera, weſt	130 leagues
From cape Cantin to S. Vincent, north	90 leagues
From cape Cantin to Teneriffe ſ. w. and by w.	148 leagues
From cape Cantin to cape de Geer, ſ. ſ. w.	50 or 52 leagues
From cape de Geer to cape de Non, ſ. ſ. w. and ſ. and by w.	27 leagues
From cape de Geer to the point of S. Cruz, ſ. e.	5 leagues
From cape de Non to Oſſia, ſouth	13 leagues
From cape de Non to cape de Bajador ſ. w. and by w.	69 leagues
From cape de Geer to cape de Bajador, ſ. w. ſomewhat weſterly	110 leag.
From Saffia to Madera and e. and w.	130 leagues
From cape de Geer to Madera, w. n. w.	123 leagues
From S. Michiels to Tercera, n. w. and by w.	34 leagues
From Tercera to the eaſt-end of S. Georges, w. ſ. w.	10 leagues
From the eaſt-end of S. Georges to Fayall, w. n. w.	16 leagues
From S. Michaels to the cape de Finiſterre, e. n. e.	247 leagues
From Tercera to Roxent, or the River of Lisbon eaſt at leaſt	267 leagues
From Tercera to cape de Finiſterre, e. n. e. & e. & by n.	280 leagues
From Tercera to the Lizart, northeaſt and by eaſt	287 leagues.

Heights.

Maſagam lyeth in	32 degr. 46 min.
C. de Cantin lyeth in	32 degr. 32 min.
The Land Mogodor in	31 degr. 18 min.
C. de Geer in	30 degr. 10 min.
C. de Non in	28 degr. 32 min.
C. de Bajador in	26 degr. 10 min.

How theſe Lands doe ſhew them ſelves at Sea.

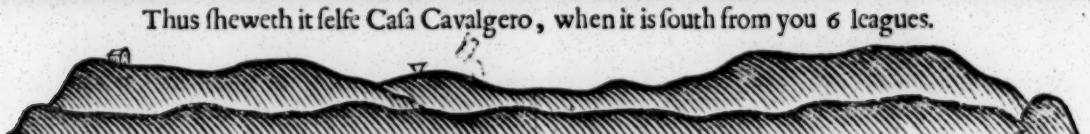
Caſa Cavalgero.



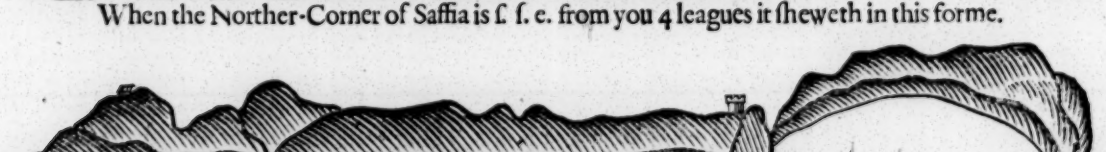
Thus ſheweth the land betwixt Maſagam and cape Cantin.



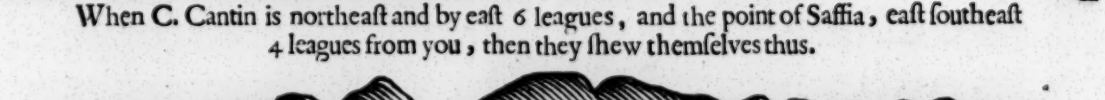
Thus ſheweth it ſelfe Caſa Cavalgero, when it is ſouth from you 6 leagues.



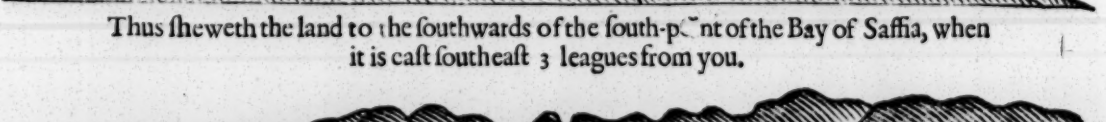
When the Norther-Corner of Saffia is ſ. ſ. e. from you 4 leagues it ſheweth in this forme.



When C. Cantin is northeaſt and by eaſt 6 leagues, and the point of Saffia, eaſt ſoutheaſt 4 leagues from you, then they ſhew themſelves thus.

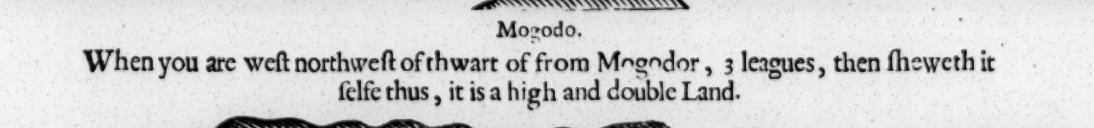


Thus ſheweth the land to the ſouthwards of the ſouth-point of the Bay of Saffia, when it is eaſt ſoutheaſt 3 leagues from you.



Mogodo.

When you are weſt northweſt of thwart of from Mogodor, 3 leagues, then ſheweth it ſelfe thus, it is a high and double Land.



C. Taffelana.

When the Cape de Taffelana is north northeaſt 3 leagues from you, the land ſheweth thus unto Cape de Geer.

When

Pascaarte voor een gedeelte der

CANARISE

Eylanden, als Canaria, Teneriffa, Forteventura etc.

't Amsterdam

By Iacob Theunisz. in Lootsman.

Palma

S. Cruz

Las Sacorda

Ferro

Gomera

de Leeuw

La Palma

Punte de Nago

Pico S. Cruz

Pico

Tenerifa.

Groot Canaria.

Duytsche mylen 15 in een graet

Spaensche mylen 17½ in een graet

Eng. en Fra. mylen 20 in een graet

Ty-havens van
LANCEROTA
als Porto de Naos. en
Porto de Cavallos.

LANCEROTA

Capen oste warders

Porto de Naos

Capen oste warders

Kerck

Porto de Cavallos

Sabruges

C. Gabrion

I. Forteventura

Fortaventura

Bergh met de 3 susen

C. Lalazon

Lancerota

I. de Lobos

P. de Cavallos

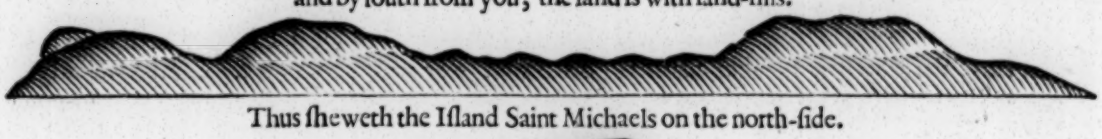
P. de Naos

W

30



When the C. de Geer n. n. w. 3 leagues from you, it ſheweth thus, and when the Bay is eaſt and by ſouth from you, the land is with ſand-hils.



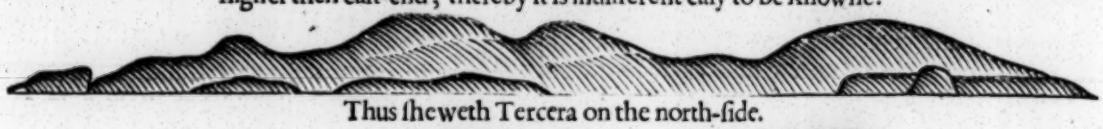
Thus ſheweth the Iſland Saint Michaels on the north-ſide.



Thus ſheweth the Iſland of Tercera, when it lyeth eaſt & by ſouth about 7 leagues from you.



When Tercera is 4 or 5 leagues from you, then it ariſeth thus, the weſt-end of this Iſland Tercera is higher then eaſt-end, thereby it is indifferent eaſy to be knowne.



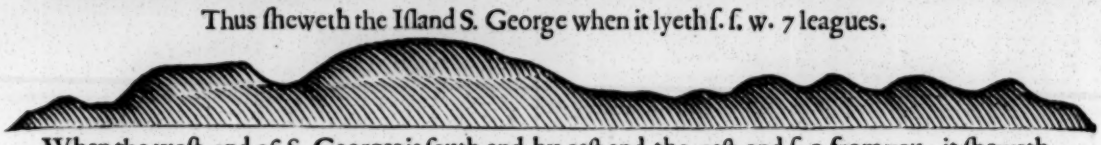
Thus ſheweth Tercera on the north-ſide.



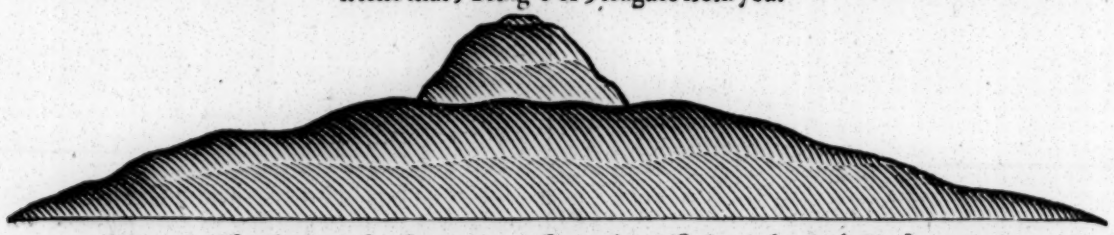
Thus ſheweth the Tercera on the ſouth-ſide when you ſayle alongſt by it.



Thus ſheweth the Iſland S. George when it lyeth ſ. ſ. w. 7 leagues.



When the weſt-end of S. Georges is ſouth and by eaſt and the eaſt-end ſ. e. from you, it ſheweth it ſelfe thus, being 8 or 9 leagues from you.



When the Iſland Pico is ſ. e. from you, it ſheweth it ſelfe thus, the thick Pieck you may ſee about 40 leagues of from it at Sea.



The Iſland Fayal ſheweth it ſelfe thus when it is ſouth from you 8 or 9 leagues.



When the Iſland Gratioſa lyeth w. ſ. w. 4 leagues from you, then it ariſeth in this forme.

The ſecond Demonſtration,

In which are to be ſeene the

CANARY ISLANDS.

THe chifeſt Ilands are the Canaries are 7 in number, Lancerota, Forteventura, or Porteventura, great Canaries, Teneriffe, Gomera, Palma and Ferro. The Iſland Lancerota lyeth from Cape S. Vincent ſ. ſ. w. diſtant about 165 leagues. It hath one haven upon the northeaſt-end, betwixt the two Iſlands Alagranca & Gratioſa, were men may come in from the northwards and lye landlockt for all winds, it is deep there 10, 15 and 20 fathom, and they may ſayle out againe to the ſouthwards along by Lancerota. At the eaſt-ſide of Lancerota is a good road before the Towne of Lancerota, there lyeth a banck to the northwards of it, which men

muſt avoyd, and run about to the ſouthwards of it, there they may anchor in 10, 11 and 12 fathom: on the ſame ſ.e. ſide lye alſo two bad havens a great ſhot of a caſt peece one from the other, the northermoſt is called Porto de Naos, & the ſouthermoſt Porto de Cavallos, which we have demonſtrated in a large volume in the n.w. corner of this card, and ſhewed the depths with number of feet at hig water & ſpring-tide.

Porto de Naos, the deepeſt of theſe bad-havens, goeth in northweſt and by north betwixt two ledges of Rockes, there ſtand two beacons of heapes of ſtones, in manner as the Wardes of Norway, which you muſt bring and keepe one in the other, and ſayle ſo right in through betwixt the foreſayd ledges of Rockes. The ſhoaleſt of the Barre betwixt the two ledges of rockes, is but a ſhort ſpace, a great ſhippes length long, and is deepe at high water 17 foot; and at low water 7 foot, ſo ſoone as you ſhall be over, it will preſently bee 20, 24, 26 and 28 foot deep, then you muſt edge up north and then preſently northeaſt and anchor behinde the rockes which lye to the northwards of the Barre, in the Channell the ground is rocky, hard, and uneven. If a ſhip ſhould come to ſtrike there, it ſhould preſently be broken. The ledge is ſo without as it is within, very ſteep, ſo that you may come very cloſe unto it, where the anchors ſtand marked, it is altogether cleane ſandy ground, 30 and 34 foot deep at hig water, with a Sea wind there can goe here a great Sea, but that happeneth ſeldome, for the winds doe blow moſt out of the north and northeaſt and therefore it is almoſt alwayeth there ſmoot water. This haven is very narrow betwixt the rockes, which lye to Seawards of you and the ſhoare, it is but a little more them a great cables length broad, and from the Haven mouth to the main land about a Cables length and a halfe. The Havens mouth alſo is not broad, buth a high water the rockes doe flow a good wayes on both ſides under water, which at low water againe are uncovered.

Betwixt Porto de Naos and Porto de Cavallos lye two little Iſlands, the northermoſt is the greateſt, at high water men may goe through with Boats within the Iſlands, into Porto de Cavallos, but not with ſhips for at low water it falleth dry there within. Upon the ſouthermoſt little Iſland ſtandeth an old Caſtle fallen downe, which here to fore hath beene ſpoyled by Engliſhmen. From the ſouth-ſide of that little Iſland ſhooteth of a riffe, and to the ſouthwards or the weſtwards of it lyeth in the Barre, which is very narrow, not above 10 fathom broad, upon the maine land ſtand alſo two little beakons, as at Porto de Naos, which you muſt bring one in the other, and ſayle ſo rigt in. At high water and ſpring-tide there is no more then 12 foot water, or an half foot more, the ground in the havens mouth is alſo hard, and no thing elſe then rocks, where you muſt goe in over, but within it is cleane ſandy ground, where you may lye a ground without any danger, with a ſhippe that draweth 10 or 11 foot water. At the higheſt water the moſt part of the rockes on both ſides of the Havens mouth, lye under water, ſo that at many places men may goe over them with Boats. At low water there remaineth in this Havens mouth no more then a foot, or a foot and a halfe depth, ſo that a ſhippis Boat cannot goe in; within men lye landlockt for all windes, and although it blow very hard, yet the water is alwayes ſmoot. In both theſe havens a ſouth and by weſt and north and by eaſt Moone maketh high water. Neare the Havens there are no houſes where Spanjards or Moores doe dwell, then only by Porto de Cavallos a little Church, where they have Maſſe ſayd on Sundayes, when the ſhippes lye there. Men go from thence betwixt the Mountaines to the town, which lyeth tree leagues from thence. He that will come here muſt provide him ſelfe with freſh water, for there is very ſeldom freſh water to be gotten. Upon this land there groweth neither Fruyt nor Wine. In ſome good years it giveth out Wheat, Bally, and Orſilly, the Inhabithants are Moore under the command of the Kingh of Spanie.

Betwixt Lancerota and Forteventure lyeth a little Iſland called Iſle de Lobos, which is on the outher-ſide, to witt, on the northweſt-ſide, very fowle. Men may anchor on both ſides of that Iſland in 15 or 20 fathom, alſo in 6 fathom a ſhot of a caſt peece ſ.w. and by weſt from the weſt-poynt of the Iſland, there men may lye landlockt for all windes, except for a n. n. w. and ſ.e. windes. The Coaſt of Forteventura is at the northeaſt-end very fowle, with many riffers that lye out, where upon the Sea doth break exceedingly.

The Iſland of great Canaries lyeth from Forteventura weſt 19 or 20 leagues diſtant. The road there lyeth, at the eaſt-ſide of the Iſland, behinde the northeaſt-point, thwart of a Caſtle that ſtandeth upon a Chindle. The foreſaid n.e. point, is a very high point, with a long ſmall & low ſandſtrand faſt to the other land, ſo that when it is 5 or 6 leagues n. w. or ſ. e. from you it ſeemeth to be an Iſland aſunder of from the other land. If you deſire to go in there into the road, then ſayle about by that n. e. point, alongſt by the Iſolettes, leaving them on the ſtarboard-ſide of you untill that the Caſtle doe lye near about n. w. and by north from you, anchor there in 8, 9, 10 or 12 fathom, then lyeth the north-point n. e. and by north and the ſouth-point ſ. ſ. e. from you.

At the ſouth-end of the gret Canaries is a faire ſand-bay called Maſpalomba, there is a good road for ſoutherly windes, and freſh water to be gotten.

The north-point of the great Canaries, and the n.e. point of Teneriffe, called Punte de Nago, lye w. n. w. and e. ſ. e. diſtant 21 leagues. In Teneriffe is a road on the ſoutheaſt-ſide before the town S. Cruz, there is a fayre ſand-bay, a little to the northwards of the town is the beſt road in 20 or 24 fathom, and then Punte de Nago, the northeaſt-point of Teneriffe lyeth n. n. e. from you, and the ſouth-point ſouth and by weſt. When the Pico of Teneriffe is w. ſ. w. from you, then are you open before this road of S. Cruz, and when you lye in the road of S. Cruz, you may ſee the Iſland of great Canaries ſoutheaſt from you about thirteene leagues.

On the n. w. ſide of Teneriffe lyeth the road of Garrichica, from the n. e. point Punto de Nago w. ſ. w. and ſ. w. and by weſt 8 or 9 leagues; he that will ancor before Garrichica, let him anchor to the weſtwards of the rock with the croſſe, called the Lion, ſo that the foreſayd rock do lye ſ. e. and by eaſt and ſ. e. from him, then he ſhall lye rigt before the towne, and may ſee rigt into the ſtreet of the town, throug the Cloyſter of S. Dominicus, there is clean ground in 36 or 40 fathom, the Pieck lyeth then over the weſt-ſide of the town, neareſt to the land, or to the rock then in 35 or 36 fathom it is not cleane, and weſtwards towards the riffe Lapania it is alſo foule ground. This is a dangerous road, therefore every one that commeth here, muſt be very carefull to have their anchors, cables, and ſailes very preedy and ready for to ſhift roads as ſoon as beginneth to be a ſtorme.

There is alſo a little haven before Garrichica, where men may lye with a few ſhips. For to ſayle in there, you muſt have a Pilot. On the weſt-ſide of the havens mouth lyeth a rock under water, but the Sea breaketh alwayes upon it, you may anchor within in the haven in 5 or 6 fathom, and muſt bring two anchors out a head to Seawards, with a cable on the rocks, and a anchor out a ſtearn, on the land, ſo that the ſhips cannot wend to and again, the ground is there fowle, you muſt buye up your cables with buyes and cask for to keep them from the ground. This is a good haven in Summer, then it is commonly good weather, but in the Winter is not good to com in there with a ſhip, for the grown ſea out of the n.w. commeth running in there ſometimes ſo forcible and ſtrong, that it is not poſſible to hold a ſhip, althoug ſhe had ten anchors out. It hath hapned certain years paſt that there was loſt in the ſame haven a great many ſhips, and a great many houſes of the ſame towne waſhed away with the great water.

Betwixt Garrachica and the eaſt-end of Teneriffe, are three lading places moore for to lade Wine at, as Maramela Relecho, and Oratama.

At the ſ. w. end of Teneriffe lyeth alſo another little haven or Bay where is much Wines laden called Adeſſe, there is alſo good lying except it be with a ſ. w. winde, which bloweth there open in.

From

From Teneriffe to the Iſland la Palm, the courſe is w. n. w. 20 leagues. On the ſoutheaſt-ſide la Palma, lyeth a faire Bay, with a Town and Lade-place, called S. Cruz. He that commeth from the northwards and deſireth to anchor in the road, let him run ſo far in the Bay untill he be to the ſouthwards, or paſt the head or the bridge, and anchor there in 25 or 30 fatum. In Winter time men muſt not anchor ſo near the ſtrand, becauſe of the ſ. e. or ſ. ſ. e. windes, for then they ſhould lye to near the ſtrand. Men lye there moored with two anchors for the Sea winde, with a ſmal anchor out a ſtearn for to keep the ſhip right in the road, there lyeth to the eaſtwards of the Towne a high white rock with a croſſe, there is the beſt road. A little to the northwards of the Town, is a faire ſand-bay, there is good anchoring in 20, 30 or 35 fathum, according as men will lye far of, the Road is called the Rammell road. When men lye in the road of Palma, they may ſee the Pieck of Teneriffe lye e. ſ. e. from them. The Iſland Palma is very high and full of trees, whereby it is eaſy to beknown.

On the ſouthweſt-ſide of la Palma is another place, where men lade Wynes, called Taſſa Corda.

About 5 leagues weſt from the weſt-end of Teneriffe, lyeth the Iſland Gomera, which hath on the n. e. ſide a good haven of 10 fatum deep, where is good lying allmoſt for all windes, better then in any of the other Iſlands, but there is nothing to lade: men may alſo anchor without before the haven in 20 fatum, but they muſt ſhift roads there as at Garrichica.

The road of Adeſſa in Teneriffe lyeth right over againſt it, eaſt of from it about 5 leagues.

The road of Palma lyeth from this haven in Gomera northweſt and by north 16 leagues.

The Iſland Ferro lyeth from the Iſland Palma, ſouth and by weſt diſtant 13 leagues.

Of the Tydes.

On the Iſlands of the Canaries maketh at the moſt places the natural tyde to witt, a ſ. w. and n. e. Moone the higheſt water.

Of the Courſes of the Sunne.

From the weſt-point of Forteventura to the Iſland of great Canaries, eaſt and weſt	19 or 20 leagues
From the nord-poynt of the Canaries to Punte de Nago the northeaſt-point of Teneriffe, w. n. w.	21 leagues.
From Punte de Nago to Garrichica, weſt ſouthweſt and ſouthweſt and by weſt	8 or 9 leagues
From Teneriffe to Iſle de Palma w. n. w.	18 leagues
From the weſt-end of Teneriffe to Gomera weſt	5 leagues
From the Palma to Ferro ſouth and by weſt	13 legues
From great Canaries tot Salvages n. n. w.	40 leagues
From Garrichica to Salvages n. n. e. and north and by eaſt	30 leagues
From Teneriffe to the Iſle de Madera north	72 leagues
From great Canaries to the eaſtend of Madera north & by weſt	85 leagues
From la Palma to Madera north and by eaſt	60 leagues
From Salvages to the Sterters of Madera north	46 leagues
The outhermoſt of the Serters lyeth from Madera	4 leagues
From Madera to S. Michaels n. w.	136 leagues
From the weſt-end of Forteventura to the Cape de Bajador, ſouth and ſouth and by weſt	20 leagues
From Lancerota to the Cape S. Vincent n. n. e.	180 leagues
From great Canaries to Cales northeaſt	240 leagues
From the great Canaries to Cape S. Vincent n. e. & by north	210 leagues
From great Canaries to Roxent n. n. e. ſomewhat eaſterly	420 leagues
From great Canaries to C. de Finiſter n. n. e. ſomewat northerly	307 leag.
From Teneriffe to the Lizart n. n. e. diſtant	467 leagues
From the Palma to Cape S. Vincent northeaſt	224 leagues
From Madera to Cape de Geer e. ſ. e.	128 leagues
From Madera to Saffia eaſt	130 leagues
From Madera to Cales e. n. e.	200 leagues
From Madera to Roxent northeaſt	178 leagues
From Madera to the Cape de Finiſterre northeaſt and by north ſomewhat northerly	245 leagues.

Heights.

The Iſland Lancerota lyeth in	48 degrees	35 minuten
The north-end of the great Canaries lyeth in	28 degrees	14 minuten
The north-end of the Teneriffe in	28 degrees	40 minuten
Iſle de Palma in	28 degrees	10 minuten
Salvages in		30 degrees
The ſouthermoſt part of Madera in		32 degrees
But the northermoſt in	32 degrees	30 minuten
Porto Sancto in		33 degrees.

How theſe Lands doe ſhew themſelves at Sea.

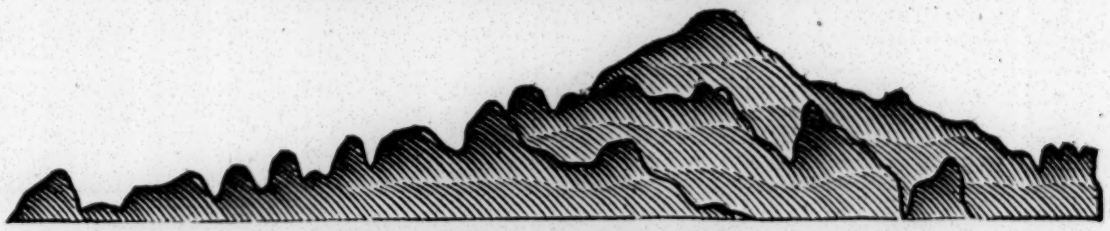
Hill with the Mizen.



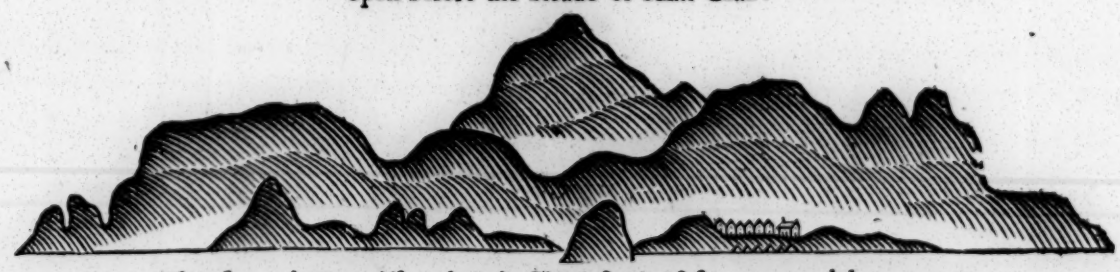
Thus ſheweth the ſouth-coaſt of Forteventura, when the Hill with the white Mizen is northweſt and by north about a league from you.



This ſheweth the northweſt-ſide of great Canaries.



Thus ſheweth Teneriffe, when the Pico is weſt ſouthweſt from you, and then you are open before the Roade of Saint Cruz.



Thus ſheweth Teneriffe, when the Pico is ſoutheaſt from you, and then are you open before the Roade of Garrichica.



When la Palme is about eaſt from you 16 or 17 leagues, then it ariſeth thus.



When Porto Sancto is ſouth and by weſt from you about 9 leagues; then it ſheweth it ſelfe thus.



Thus sheweth the Island Palma being south and south and by east 9 or 10 leagues from you.



Thus sheweth the Island Palma being s. w. and by south 4 or 5 leagues from you.



When Salvages is e. s. e. 5 leagues from you, it sheweth it selfe thus.

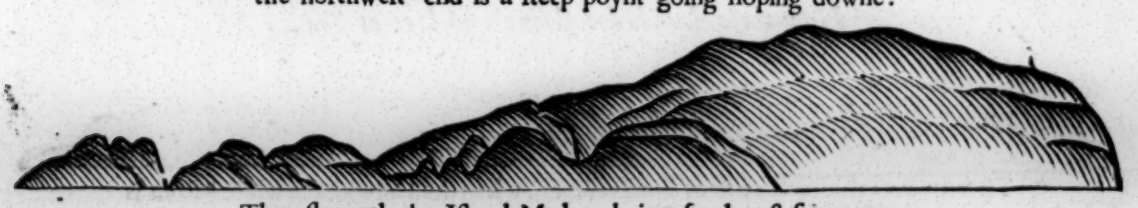
When Salvages is e. s. e. 5 leagues from you, it ariseth thus.



When Porto Sancto is about 5 or 6 leagues from you, then sheweth it selfe thus.



Thus sheweth the Island Madera, when you come from the northwards, and that the middest of the Island is 10 or 12 leagues from you, the southeast-end is very ragged when you are neere by it, the northwest-end is a steep poynt going sloping downe.



Thus sheweth the Island Madera being southwest from you.



When Madera is westsouthwest from you 13 leagues, it ariseth thus.

When Madera is south from you 16 leagues, it sheweth it selfe thus.

FINIS.

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